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BEFORE THE PLANNING COMMISSION  
OF THE CITY AND COUNTY OF HONOLULU  
STATE OF HAWAII

In the Matter of the ) FILE NO. 2008/SUP-2  
Application of )  
)  
)  
DEPARTMENT OF ENVIRONMENTAL )  
SERVICES, CITY AND COUNTY )  
OF HONOLULU )  
)  
)  
To delete Condition No. 14 )  
of Special Use Permit No. )  
2008/SUP-2 (also referred )  
to as Land Use Commission )  
Docket No. SP09-403) which )  
states as follows: )  
)  
"14. Municipal solid waste )  
shall be allowed at the )  
WGSL up to July 31, 2012, )  
provided that only ash and )  
residue from H-POWER shall )  
be allowed at the WGSL )  
after July 31, 2012." )  
----- )

CONTESTED CASE HEARING

Ewa-State Special Use Permit Amendment Application -  
2008\SUP-2 (RY) Waimanalo Gulch Sanitary Landfill

Taken at Mission Memorial Conference Room,  
Mission Memorial Building, 550 South King Street,  
Honolulu, Hawaii 96813, commencing at 9:05 a.m., on  
April 11, 2012, pursuant to Notice.

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BEFORE: SUE M. FLINT, RPR, CSR 274  
Notary Public, State of Hawaii

APPEARANCES:

Planning Commission:

- GAYLE PINGREE, Chairwoman
- CORD D. ANDERSEN, Member
- DANIEL S.M. YOUNG, Member
- BEADIE DAWSON, Member
- JAMES C. PACOPAC, Member
- ARTHUR TOLENTINO, Member

For the Planning Commission:

WINSTON K.Q. WONG, ESQ.  
 Deputy Corporation Counsel  
 Department of the Corporation Counsel  
 530 South King Street, Room 110  
 Honolulu, Hawaii 96813

1 Appearances (continued):

2 For the City and County of Honolulu, Department of  
3 Environmental Services:

4 DANA MIE OSHIRO VIOLA, ESQ.

5 ROBERT BRIAN BLACK, ESQ.

6 Deputies Corporation Counsel

7 City and County of Honolulu

8 530 South King Street, Room 110

9 Honolulu, Hawaii 96813

10

11 For Ko Olina Community Association and Senator Maile  
12 Shimabukuro:

13 CALVERT GRAHAM CHIPCHASE, IV, ESQ.

14 CHRISTOPHER T. GOODIN, ESQ.

15 Cades Schutte

16 1000 Bishop Street, Suite 1200

17 Honolulu, Hawaii 96813

18

19 For Schnitzer Steel Hawaii Corp.:

20 IAN L. SANDISON, ESQ.

21 ARSIMA A. MULLER, ESQ.

22 Carlsmith Ball LLP

23 ASB Tower, Suite 2200

24 1001 Bishop Street

25 Honolulu, Hawaii 96813

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WITNESS: HARI D. SHARMA

Ms. Viola ..... 7, 57

Mr. Chipchase ..... 44

Member Dawson ..... 57

Chairwoman Pingree ..... 65

WITNESS: TIMOTHY STEINBERGER

Ms. Viola ..... 70, 192

Mr. Chipchase ..... 138

Member Dawson ..... 206

Chairwoman Pingree ..... 209

Member Anderson ..... 211

## 1 CONTESTED CASE HEARING

2 CHAIRWOMAN PINGREE: We'll call the  
3 meeting to order. Today is April 11, 2012 and this  
4 is day seven of the contested case hearing Ewa-  
5 State Special Use Permit Amendment Application  
6 2008/SUP-2, Waimanalo Gulch Sanitary Landfill.

7 Identification of counsel, please, for the  
8 record?

9 MS. VIOLA: Dana Viola and Brian Black on  
10 behalf of the City.

11 MR. SANDISON: Ian Sandison and Arsima  
12 Muller on behalf of intervenor Schnitzer Steel of  
13 Hawaii Corp.

14 MR. CHIPCHASE: Cal Chipchase and Chris  
15 Goodin for intervenors Ko Olina Community  
16 Association and Senator Maile Shimabukuro.

17 CHAIRWOMAN PINGREE: Thank you. Good  
18 morning. I believe we left off with your rebuttal  
19 witnesses.

20 MS. VIOLA: Yes. Can we take a procedural  
21 matter? I believe there was a filing for rebuttal  
22 witnesses on behalf of KOCA, the intervenors.

23 CHAIRWOMAN PINGREE: Right.

24 MS. VIOLA: The City would like to state  
25 an objection at this time to any purely repetitive

1 evidence and it would assert that the witness in  
2 particular testifying regarding the clean-up  
3 conducted by, I'm assuming, KOCA is not something  
4 that the City has represented it would contest, so  
5 that would be purely repetitive evidence. And  
6 anything in Mr. Miller's testimony, as well, that  
7 would be purely repetitive, we would be objecting  
8 to.

9 CHAIRWOMAN PINGREE: I'm being advised by  
10 counsel to have that brought up when rebuttal  
11 witness information is being presented by KOCA.

12 MS. VIOLA: Okay.

13 CHAIRWOMAN PINGREE: Thank you.

14 MS. VIOLA: At this time, the City would  
15 call Dr. Hari Sharma.

16 CHAIRWOMAN PINGREE: Good morning, Mr.  
17 Sharma.

18 MR. SHARMA: Good morning.

19 CHAIRWOMAN PINGREE: Would you kindly  
20 raise your right hand, please?

21

22 HARI SHAMA,  
23 called as a witness, being first duly sworn to tell  
24 the truth, the whole truth and nothing but the  
25 truth, was examined and deposed as follows:

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BY MS. VIOLA:

Q. Good morning.

A. Good morning.

Q. Could you please state your name for the record?

A. Hari Sharma.

Q. Could you state your occupation?

A. I'm Hari Sharma and I'm an engineer involved in landfill design.

Q. Could you specify what type of engineer you are, Mr. Sharma?

A. I'm a civil environmental and landfill design engineer.

MS. VIOLA: I'm going to hand out what the City is going to mark as Exhibit K37. This is Dr. Sharma's resume.

BY MS. VIOLA:

Q. Dr. Sharma, could you please -- I'm handing you what I've marked as Exhibit K37. Could you read the summary that's on the first page of this exhibit?

A. Okay.

CHAIRWOMAN PINGREE: That's A37?

MS. VIOLA: Yes, A37. I apologize. I

1 meant A not K.

2 A. So I'll read from the start. Hari D.  
3 Sharma, Ph.D., P.E., G.E., is a principal  
4 geotechnical engineer at Geosyntec Consultants, Inc.  
5 with forty years of geotechnical engineering  
6 experience. For the past 25 years, Dr. Sharma has  
7 specialized in the permitting, design and  
8 construction of solid waste containment facilities.

9 Dr. Sharma earned his Ph.D. from Purdue  
10 University and his master's degree from IIT Roorkee  
11 University and is currently a Registered  
12 Professional Civil Engineer in Hawaii, California  
13 and other states.

14 Dr. Sharma has published numerous  
15 technical papers and two textbooks related to design  
16 of solid waste facilities. Dr. Sharma's textbooks,  
17 Geoenvironmental Engineering: Site Remediation,  
18 Waste Containment and Emerging Waste Management  
19 Technologies and Waste Containment Systems, Waste  
20 Stabilization and Landfills: Design and Evaluation  
21 were published by John Wiley & Sons and have been  
22 used by universities to teach future solid waste  
23 engineers and educate the industry's design  
24 practitioners.

25 Dr. Sharma has been the design engineer



1 for the permitting and detailed design at more than  
2 50 municipal solid waste facilities throughout  
3 California, Oregon, Hawaii, Washington, Alaska and  
4 Arizona.

5 Dr. Sharma recently served on the National  
6 Research Council committee to assess the Performance  
7 of Engineered Barriers and is active  
8 geoenvironmental engineering research and practice.

9 BY MS. VIOLA:

10 Q. Thank you.

11 MS. VIOLA: At this time, the City would  
12 move to qualify Dr. Sharma as an expert in landfill  
13 design and permitting.

14 MR. CHIPCHASE: I'm sorry. What was the  
15 second?

16 MS. VIOLA: Landfill design and  
17 permitting.

18 MR. CHIPCHASE: No objection.

19 MR. SANDISON: No objection.

20 CHAIRWOMAN PINGREE: Thank you.

21 BY MS. VIOLA:

22 Q. Dr. Sharma, could you explain your  
23 involvement with the Waimanalo Gulch Sanitary  
24 Landfill?

25 A. I've been involved with this landfill for

1 about ten years or so, starting with the evaluation  
2 of the existing landfill, reviewing the previous  
3 practitioner's engineer's work and revising it and  
4 then designing the so-called 14.9 acre landfill  
5 cells E1, E2, E3 and E4, and then mostly recently  
6 designing and preparing reports and construction  
7 drawings for the current expansion, which starts on  
8 E5 through E9 cells at the landfill.

9 Q. What did you review in preparing for  
10 today's testimony?

11 A. Mr. Miller's declaration.

12 Q. That would be Dwight Miller?

13 A. Dwight Miller, yes. The declaration and  
14 the documents which he reviewed to prepare his  
15 presentation.

16 Q. Did you also read what has been titled the  
17 Waimanalo Gulch Sanitary Landfill Design and  
18 Operation Review Technical Memorandum prepared by --

19 A. Yes.

20 Q. -- Parametrix?

21 A. Yes.

22 Q. Is there anything that stands out in your  
23 review of the documents that Mr. Miller reviewed?

24 A. What I can say, looking at his testimony  
25 and looking at what he has prepared and the

1 references cited there, he has not reviewed all the  
2 references there.

3 Q. What do you mean by "all the references"?

4 A. Well, I think there's a long list of  
5 references for this design and construction work and  
6 what I could find is -- and I probably don't  
7 remember exactly -- one or two, only, there; whereas  
8 there probably are over 25 or so.

9 Q. Over 25 --

10 A. References.

11 Q. In Mr. Miller's --

12 A. Yes. Well, no, no, no. Sorry. He should  
13 have reviewed over 25 references of design and  
14 construction related to this landfill expansion. He  
15 reviewed only two.

16 Q. Let me show you now what we'll be marking  
17 as Exhibit A38. Dr. Sharma, do you recognize  
18 Exhibit A38?

19 A. Yes.

20 Q. Can you please describe it?

21 A. This is the bibliography of Waimanalo  
22 Gulch landfill, and this outlines all the reports  
23 which are produced by Geosyntec related to landfill  
24 expansion.

25 Q. Who put this bibliography together?

1 A. Yes.

2 Q. Did you put this bibliography together?

3 A. Yes. Me and my staff, but I reviewed  
4 after that.

5 Q. And what does this bibliography contain?

6 A. It contains starting from landfill  
7 expansion master plan, through project manuals,  
8 different submittals. All these are submitted to  
9 the Department of Health.

10 Q. And all these documents relate to the  
11 Waimanalo Gulch Sanitary Landfill?

12 A. Yes.

13 Q. Were any of these documents reviewed by  
14 Mr. Miller?

15 A. I think he only -- yeah. His only review  
16 was engineering report 2008.

17 Q. In formulating an opinion regarding the  
18 design of Waimanalo Gulch landfill, would you  
19 consider it critical to review all these documents  
20 in preparing an opinion relating to the gulch?

21 A. Well, if I was reviewing the design, I  
22 would do it. I would review everything before I put  
23 my opinion on it. So without reading and going  
24 through and reviewing all the documents, I would not  
25 be putting the opinions correctly.

1 MS. VIOLA: I'm sorry. At this point the  
2 City would like to move into evidence Exhibits A37  
3 and A38.

4 MR. CHIPCHASE: I think 37 is in, but no  
5 objection to 38.

6 MR. SANDISON: No objection.

7 MS. VIOLA: I'm not sure if --

8 MR. CHIPCHASE: If it's not, no objection  
9 to it either.

10 BY MS. VIOLA:

11 Q. As an expert in landfill design, would you  
12 expect him to have reviewed all those documents that  
13 you referred to there?

14 A. Yes.

15 Q. As an expert in landfill design as it  
16 relates to surface water drainage, which is part of  
17 the design for the landfill, would you expect him to  
18 review all the documents related to the surface  
19 water drainage system, as well?

20 A. Yes, obviously.

21 Q. In reviewing his documents, as well as his  
22 references, did you recognize any -- I guess any  
23 documents that he failed to review relating to  
24 surface water drainage?

25 A. You know, I don't recall exactly what when

1 I reviewed all of it, but I don't remember he had  
2 any of those surface water documents he reviewed  
3 there.

4 Q. Let me show you what we are marking as  
5 Exhibit A39. Dr. Sharma, can you please describe  
6 Exhibit A39 that's in front of you?

7 A. This is GEI Reports Issued for the  
8 Waimanalo Gulch Sanitary Landfill Project. And GEI  
9 is a consulting company who are experts in  
10 hydrologic and surface water design experts. So  
11 this is their report they issued.

12 Q. Those are the reports they issued relating  
13 to the Waimanalo Gulch Sanitary Landfill?

14 A. Yes.

15 Q. As far as you can recall, were those  
16 documents that you referred to in that document,  
17 were they reviewed by Mr. Miller?

18 A. As I said, that's what I recall, that none  
19 of them were reviewed.

20 Q. I'm going to be handing you what has been  
21 marked as Exhibit A40. Dr. Sharma, can you describe  
22 Exhibit A40?

23 A. This is GEI Consultants-produced Surface  
24 Water Management Plan and it outlines -- it was not  
25 prepared by me, but prepared by GEI. But being a

1 landfill designer, I know what it has, and it  
2 provides concepts, background of how the surface  
3 water should be handled at the site, water coming  
4 from up canyon and water coming from landfill and  
5 how to then discharge. This provides the conceptual  
6 plan and outlines the details of it.

7 Q. The conceptual plan specific to Waimanalo  
8 Gulch Sanitary Landfill?

9 A. That's correct.

10 Q. As far as you recall, was this document  
11 reviewed by Mr. Miller?

12 A. No, I don't think so.

13 Q. So in his report and his testimony,  
14 written testimony, there was no reference  
15 essentially to surface water drainage documents?

16 A. Not to this document at all.

17 Q. And the documents that --

18 A. And the document before.

19 Q. -- that are included in Exhibit A39?

20 A. (Witness nods.)

21 MS. VIOLA: The City would like to move  
22 into evidence A39 and A40.

23 MR. CHIPCHASE: No objection, subject to  
24 the confirmation that all of the documents  
25 referenced in here were produced to Ko Olina.

1 MR. SANDISON: No objection.

2 BY MS. VIOLA:

3 Q. In formulating an opinion regarding the  
4 surface water drainage system for the Waimanalo  
5 Gulch landfill, would you consider it critical as an  
6 expert to review the documents that are contained in  
7 these two exhibits?

8 A. Very critical. If one was -- gives an  
9 opinion about the surface water drainage on the  
10 site, they should have reviewed.

11 Q. For a landfill design expert, wouldn't you  
12 expect that expert to be aware of surface water  
13 drainage documents, that they would exist?

14 A. Well, they should ask for any documents  
15 which are available related to surface water.

16 Q. If the documents that they reviewed did  
17 not contain any, I guess, reference to any surface  
18 water drainage reports, would you consider that odd?

19 A. Yes, I would. Obviously -- yes, I would.

20 Q. On page nine of Mr. Miller's written  
21 declaration, he criticizes Waste Management for not  
22 having a licensed engineer experienced in hydrologic  
23 modeling and water collection and conveyance design  
24 actually design the temporary storm water collection  
25 and conveyance system.



1 Is that an accurate statement?

2 A. I'm sorry. Can you read it again?

3 Q. On page nine of Mr. Miller's written  
4 declaration, he criticizes Waste Management for not  
5 having a, quote, licensed engineer experienced in  
6 hydrologic modeling and water collection and  
7 conveyance design, end of quote, actually design the  
8 temporary storm water collection and conveyance  
9 system.

10 Is that criticism accurate?

11 A. No, that's not accurate.

12 Q. And if he had reviewed the surface water  
13 documents, would he know that essentially there were  
14 hydrologic engineers involved in the design of this  
15 landfill?

16 A. Yes. GEI, as you can see here, it says  
17 Geotechnical, Water Resources, Environmental and  
18 Ecological Services.

19 Normally, we, in Geosyntec, we also do the  
20 surface water design, and we have experts in doing  
21 that, but for this site, surface water is one of the  
22 major issues. That requires more sophisticated and  
23 experienced people in that area. So Waste  
24 Management decided to go to GEI. Actually, they  
25 design that, where water is very important, so

1 that's why they have gone to them to do the design.

2 Q. Mr. Miller also criticizes Waste  
3 Management for not following the sequence of  
4 construction as dictated in the 2008 engineering  
5 report and the Final Environmental Impact Statement.

6 Is the sequence of construction dictated  
7 in these documents -- or prescribed, I should say?

8 A. No, they have not been. Normally they are  
9 not.

10 Q. Why do you say that?

11 A. You know, in landfills, when we prepare  
12 the permit documents, the important part in landfill  
13 is the boundaries of the waste. You don't want --  
14 you are not allowed to go beyond those boundaries,  
15 so we outline the boundaries. You outline the  
16 height. You outline the containment systems, you  
17 know, what kind of lining system is there. Those  
18 are the important aspects.

19 And then pertaining to different cells,  
20 there are lines on the drawing. They are just like  
21 streets, name the streets, and so if you are going  
22 somewhere else, you say street A or B, the same way  
23 we have cell E4, E5, E6, just because of  
24 geographical locations, not because that's how it's  
25 built.

1           And we purposely do not outline the  
2           sequence of construction, because sequence of  
3           construction depends on factors like waste stream,  
4           how much waste you are going to get, and that  
5           changes on the conditions, which types, at this site  
6           the burners, how many burners are working, and here  
7           there are two different types of -- two burners are  
8           -- pre-processing required in them, and the other  
9           one is a mass burner, so the waste coming out is  
10          different.

11           So looking at all those scenarios, these  
12          kind of reports only outline the boundary, the  
13          height, the containment system; not how you build,  
14          how you construct each one of them or which one to  
15          construct first or which one to construct later,  
16          because that will change with time. So if you  
17          constrain the operators with these ones, that may  
18          turn out to be harmful to human health and  
19          environment, because they don't have that  
20          flexibility to make sure that proper locations are  
21          used for waste disposal.

22          Q.       Can you refer to the section in the 2008  
23          engineering report that in fact states the opposite,  
24          that the sequence is not prescribed? Let me show  
25          you essentially what has been marked as Exhibit A41.

1           A.       So section 1.4, where it says expansion  
2 plan, page three. So the first paragraph tells you  
3 about the size of it and the height it goes to and  
4 the slope it takes, and the second paragraph says:  
5 The limits of each expansion shall -- expansion cell  
6 -- sorry -- shown on figure five are approximate at  
7 this time. The actual cell limits will be developed  
8 based on waste flows and may be modified based on  
9 the actual waste stream.

10                   And in the footnote about waste steam it  
11 says: Depending upon the ratio of MSW, which is  
12 municipal solid waste, and ash received at the  
13 landfill and ash shall -- cell may need to be  
14 constructed later in the northern portion of the  
15 expansion area. A change in the operating permit  
16 will be submitted for approval by HDOH.

17                   And then it says: If cells are added, the  
18 sump arrangements may be changed -- I'm back on the  
19 main text -- changed if required by HDOH to separate  
20 leachate from ash and MSW. The overall expansion  
21 limit will not change.

22                   So it is saying the same thing, what I  
23 mentioned to you earlier, and this was placed in  
24 there. And this is not unusual. This is done quite  
25 commonly in landfill permit documents.

1 Q. So this was in the 2008 engineering  
2 report?

3 A. That's correct.

4 Q. If I may restate, you're saying that in  
5 the 2008 engineering report, there isn't a sequence  
6 that is prescribed for the construction of the  
7 cells?

8 A. No, there was none.

9 Q. Could you elaborate? I mean, is this  
10 common practice or unique to the Waimanalo Gulch  
11 situation?

12 A. No. This is common practice. More  
13 landfills, they don't -- as I mentioned earlier,  
14 don't tie down the details of each cell construction  
15 and expansion issues. The problem will come only --  
16 or the issues will have to raise only if the height  
17 had changed, the boundaries are changed, the  
18 landfill lining and containment systems are changed;  
19 then they're raised.

20 Q. So on these types of reports there is --  
21 so what you're saying is there's a certain  
22 flexibility built into these design reports because  
23 it will be dependent on -- future development will  
24 depend on waste stream?

25 A. That's correct, yes.

1 Q. In your textbooks that you wrote on  
2 landfill design that are used at the university  
3 level, do you recommend that these reports similarly  
4 dictate this amount of flexibility?

5 A. Yeah. They don't specify any sequencing  
6 at all. Actually, I'm called upon by universities  
7 to give guest lectures and I mention those things  
8 very clearly, the importance that you have to be  
9 flexible on certain issues like this.

10 Q. So in the landfills -- or the experience  
11 that you have in the landfills that you've designed,  
12 from the original engineering report that is the  
13 basis for an environmental review like an EIS, there  
14 has been changes since that initial report in cell  
15 numbers and cell construction?

16 A. Well, cell numbers have been changed, but  
17 within the boundaries of the report.

18 Q. What I'm saying is that the cell or the  
19 expansion is -- or the extent of -- the expanse of  
20 the landfill is limited, but the way each cell is  
21 developed can be variable?

22 A. Yes. And we have not identified in the  
23 report which cell will be developed first.

24 Q. I think Mr. Miller has testified that cell  
25 E6, say, was built before E5, and he says that this

1 fails to follow the building sequence as dictated in  
2 the report and the EIS.

3 Is that an accurate statement, based on  
4 your testimony?

5 A. No, that's not accurate.

6 Q. Why not?

7 A. First of all, there is no sequencing on  
8 E5; and the second is, it turns out to be that a  
9 part of E5 was built, a part, before E6, and the  
10 reason -- I wish I had the --

11 Q. Let me show you what I'm marking as  
12 Exhibit A42.

13 Dr. Sharma, can you describe what is  
14 contained in Exhibit A42?

15 A. What is outlined, the overall -- the  
16 expanded and the earlier landfill boundaries and the  
17 new expansion. I could go over everything, but I  
18 guess for this discussion purpose, the expansion is  
19 what we call E5, E6, E7, E8 and E9, and the note  
20 down here says -- there's a note here that says:  
21 Expansion, cell limits will be adjusted based on  
22 actual waste stream.

23 So even if somebody -- so the way the  
24 construction works, the E6 is at a lower level. If  
25 this is a canyon, something like this, and E6 is

1 over here and E4 is over here. So you have to -- E4  
2 is over here, but part of E4 is above -- part of E5  
3 is above E4. You can see that. So the part of E5  
4 which is above E4 can be built, because E4 is  
5 buttressing it, you know, it's holding it. But the  
6 part of E5 is above E6, because E6 is lower, there  
7 will not be any buttressing until E6 is built. So  
8 the part which was above E4 was built, E5. The part  
9 which is above E6 was not built. E6 has to be built  
10 first.

11 So I think Mr. Miller probably was  
12 thinking that E5, just the name suggested it be  
13 built first and then E6 and then E7, but that  
14 doesn't happen in actual situations. It all depends  
15 on the site conditions, location.

16 So this will show how the construction  
17 will go. After E6, part of E6, then we have to  
18 build E7. But we also have to build a buttress  
19 where it says western toe berm. That has to be  
20 built to hold it, so there's a sequencing of  
21 construction in the field.

22 Q. So the sequencing is not necessarily based  
23 on the number, but essentially the actual conditions  
24 of the cells, where they're located?

25 A. Yes.



1 MS. VIOLA: Let me move into evidence --  
2 I'm not sure if I moved into evidence Exhibit A41,  
3 but at this time the City would like to move A41 and  
4 A42.

5 CHAIRWOMAN PINGREE: Counsel?

6 MR. SANDISON: No objection.

7 MR. CHIPCHASE: No objection.

8 BY MS. VIOLA:

9 Q. Mr. Miller also concludes that because  
10 only a portion of cell E6 was built, that this is  
11 also a digression from the engineering report and  
12 the FEIS.

13 Is that an accurate statement?

14 A. No, it is not.

15 Again, I'd like to mention that permit  
16 report -- permit report and drawings are not  
17 construction drawings and sets. After permit report  
18 is done, permit work is approved, then you prepare  
19 the construction reports -- construction drawings  
20 and specifications.

21 And majority of the time, the whole cell  
22 is not developed at one time. Now, coming back to  
23 the cell, rather than sequencing, the cell is not  
24 developed all the same time. It depends on -- as I  
25 said, E5 part was built because of where E4, and

1 part was not built, by E6.

2 The other reason, also, is if you build  
3 the whole cell at one time, you line it and liner is  
4 then exposed for three or four years, and the  
5 elements, the rain, and especially the sun --  
6 ultraviolet rays degrade the liner system. So you  
7 only line it for a year, sometimes year and a half  
8 or two, but mostly every year you line it.

9 If you line for four or five years and  
10 then visually they will look all right, but the  
11 properties degrade. And on long-term, you have  
12 covered it, it looks good, but on long-term it will  
13 tear, it will not be containing the containment in  
14 there. And so that's hazardous to human health and  
15 environment. Therefore, they are developed in  
16 phases, and again, these phases depend on how much  
17 waste you're getting, which you know now but you  
18 don't know what's going to happen three years from  
19 now or two years from now. So that's the  
20 development phase, not all at ones.

21 Q. So when Mr. Miller concludes that somehow  
22 the changes in size -- the change in size or the  
23 change in sequence increased the risk of public  
24 health hazard, would you disagree with that  
25 statement?

1 A. Yes, I would. I would, yes.

2 Q. Could you elaborate?

3 A. As I said, it is not going to -- actually,  
4 it's going to protect more, because you are  
5 constructing it to make sure that the lining system,  
6 the containment system integrity is maintained. And  
7 so I don't know why that statement was made.

8 Q. And moving on to a different subject --  
9 Mr. Miller also testified that federal and state  
10 regulations are minimum standards or minimally  
11 protective. Would you agree with that statement?

12 A. Well, I guess, Title 40, 258 is the  
13 criteria for landfill design. There are some places  
14 minimum requirement, other places it's the criteria.  
15 And those criteria were established after lots of  
16 research, lots of input from different consultants.

17 I was, at that time, a part of reviewing  
18 and providing my input in those things, and that was  
19 late '80s, early '90s. I don't want to date myself,  
20 but that was the time those things were done. And  
21 those criteria were established -- it doesn't mean  
22 that if you went slightly below those criteria it  
23 was going to be harmful to the environment. There  
24 was an in-built factor of safety. So that's why  
25 they ask everybody make sure that you meet those

1 criteria. There were in-built factors of safety in  
2 there.

3 Q. So these standards were built to protect  
4 human health and the environment?

5 A. Yes.

6 Q. In relation to the landfill, were there  
7 any standards essentially in the landfill design  
8 that were exceeded by Waste Management in designing  
9 the landfill?

10 A. I'm sorry? They were what?

11 Q. Any of the standards that were exceeded?

12 A. Oh, yes. We have -- what is considered  
13 most important in landfill design -- everything is  
14 important, but some are more important than the  
15 other -- is the landfill stability. You know, it  
16 should be stable. It should not move excessively so  
17 that the system does not perform. So we call it  
18 slope stability analysis.

19 The guidelines for slope stability  
20 analysis are, for short term -- that is when you are  
21 constructing a certain part of the landfill -- the  
22 factor of safety should be 1.3. On the long term,  
23 it should be 1.5. Long term means two years, five  
24 years, ten years. We have in our report -- we have  
25 put our factors of safety range between 1.5 to over

1 2. So we just don't stick to the criteria that are  
2 guideline levels. We have gone above.

3 The seismic factors -- when the earthquake  
4 shakes the landfill, it goes up and down, up and  
5 down, and in the end there is some residual movement  
6 left, and so research has shown that if the residual  
7 movement -- again, there's a factor of safety there  
8 -- is 12 inches, it will be okay. And this has been  
9 proven out based on our -- I actually looked at the  
10 landfills in the Loma Prieta earthquake and  
11 Northridge Earthquake, and then after that, many  
12 others, Japan earthquake and many other earthquakes  
13 have proven this out, that yes, that information is  
14 more than 12 inches there could be some damage, but  
15 12 inches or less would not be.

16 We have designed this landfill for  
17 deformation -- earthquake-induced seismic  
18 deformation another six inches, so we have in  
19 addition to the inherent factor of safety, we have  
20 added a factor of safety of two.

21 The lining system -- this criteria I'm  
22 pointing out to you because -- sorry about that --  
23 the Title 40, 258 states that the lining system  
24 should be -- if it's subgrade, proper subgrade is  
25 made, and then we put a low permeability material.

1 Low permeability material is very low permeability;  
2 I would say tenth to the power minus seven, which is  
3 ten million of centimeter per second flow, very low,  
4 and then at the top of that we put a HDP,  
5 high-density polyethylene layer. At this landfill,  
6 we have put two layers of that, one below this low  
7 permeability material and one above this. And the  
8 permeability, the rate of flow going through this  
9 for high-density polyethylene is tenth to the power  
10 minus 12, which is -- tenth to the power minus six  
11 is a million, nine is, I guess, a billion, and  
12 twelve is, I guess, a trillion --

13 (Discussion off the record.)

14 A. So it is tenth to the power minus twelve  
15 centimeters per second. I think that should be  
16 enough. So we have done that.

17 Then the leachate levels, the leachate  
18 levels -- the leachate is one of the major issues in  
19 landfills, because the water from the sky will fall  
20 -- I'm not talking about the water going around it,  
21 but the water in the landfill. Some of it run off  
22 and you take it out, but some will percolate and  
23 that percolates to the waste and then collects the  
24 chemicals to the waste, and we call it leachate.  
25 And then the leachate goes down at the top of that

1 lining system and is collected someplace.

2           The criteria in the regulations are, at  
3 one time, on the lining system should not have  
4 leachate head more than 12 inches. And again, the  
5 in-built factor of safety, what we have done is we  
6 have designed the system in such a way that for a  
7 short period of time when the operation is going on  
8 -- because the operation doesn't happen for the  
9 whole landfill at one time; only one or two percent  
10 of the area. At that time, we had designed the head  
11 to be between eight inches and ten inches. On the  
12 -- which is one or two percent. Whereas for other  
13 98 percent, for long-term basis, the head is 4.5 to  
14 six inches. So, you know, there has been other  
15 level of safety factors there.

16           For surface water, the GEI has designed  
17 the surface water. Regulations require 25-year, 24-  
18 hour storm design. They have designed it for a  
19 hundred year, 24-hour; that is every hundred year  
20 for 24 hours. So which is again -- so we have not  
21 just followed the regulatory criteria, but we have  
22 gone above and beyond the requirements.

23 BY MS. VIOLA:

24           Q.       In relation to what you just referred to,  
25 the surface drain or the diversion channel, Mr.

1 Miller concludes that the building of the channel  
2 during the same time as the construction was not  
3 standard engineering practice.

4 Do you agree with that conclusion?

5 A. Well, in general -- in general, I would  
6 agree with it, because I would have the diversion of  
7 the water completed before the landfill --  
8 construction can continue both at the same time, but  
9 before you place the waste in there. Before you  
10 place the waste, the diversion should be completed.

11 But what I understand -- because this is  
12 an operation issue. What I understand is we had --  
13 actually, Geosyntec and GEI had prepared the  
14 construction drawings. I think we started in 2006  
15 or seven, around that time, and supplemented these  
16 construction drawings in 2010, January or something.  
17 And the Department of Health and other regulatory  
18 had approved it, but then it was found out that the  
19 diversion channel area, the SUP issue, Special Use  
20 Permit issue, because I think there was some  
21 archaeological issue that had to be resolved, and it  
22 was being resolved but it got delayed, and so they  
23 would allow Waste Management -- the various agencies  
24 would not allow Waste Management to go and construct  
25 the diversion channel.



1           And it took, I guess, many months before  
2 it was approved, and within two weeks -- and this is  
3 what Waste Management has told me -- within two  
4 weeks they went there to construct it.

5           Q.       Within two weeks of what?

6           A.       Within two weeks of receiving the approval  
7 for that diversion channel area.

8           In the beginning, they had said go ahead  
9 because they felt that this would resolve very  
10 quickly. But then there was -- so both were being  
11 constructed --

12           And construction is not the problem; it is  
13 the waste placement. And what I understand is the  
14 landfill was running out of space. So the  
15 Department of Health -- that's my understanding it  
16 is -- said, go ahead and place the waste, and, Are  
17 you sure that it will take care of 24-hour, 25-year  
18 storm, as required by Title 40, 258. And they said,  
19 Yes, it can. And so under the circumstances, with  
20 those limitations, this -- the waste was placed  
21 there.

22           And as a matter of fact, I'm told by  
23 surface water people that the first storm, in  
24 December 2010, which was 25-year storm, was  
25 contained. The design contained it. It was the

1 problem -- this all happened when it was hundred-  
2 year storm came and the diversion was not completed.  
3 If diversion was completed, it would have taken the  
4 100-year storm, also.

5 Q. Do you feel that the landfill was  
6 constructed consistent with the engineering report  
7 and design plans?

8 A. Yes.

9 Q. Another opinion that was issued by Mr.  
10 Miller was that the spills that occurred in December  
11 2010 and January 2011, somehow the design and  
12 construction supporting the Final Environmental  
13 Impact Statement somehow were incorrect, so  
14 therefore, it would require another supplemental  
15 EIS.

16 Would you agree with that statement?

17 A. No. As I mentioned earlier, the landfill  
18 boundaries were not changed. The height did not  
19 change. The containment system was not changed.  
20 The diversion channel, if they would have built  
21 right time, permits were approved the right time,  
22 this would have worked pretty good, and I'm still  
23 confident it will work pretty good. I don't see any  
24 reason to make that kind of statement.

25 Q. Again, you feel that the design and

1 construction are solid, specifically in relationship  
2 to a canyon-fill landfill?

3 A. Yes, I would say that, because this is not  
4 my first canyon landfill design. I have designed  
5 many canyon landfills previously, so no, I think --

6 Q. In building this particular landfill -- or  
7 designing this particular landfill, did you have  
8 assistance by other engineers who specialized in  
9 landfill design?

10 A. Yes -- which we don't do that often,  
11 because of cost, but this being a very sensitive  
12 site and landfill, not only we had used our in-house  
13 expertise, we have also gotten reviewed, the design,  
14 first from Professor Jonathan Bray, who is a  
15 professor from the university in Berkeley,  
16 University of California at Berkeley. He's expert  
17 in landfill as it relates to the seismic issues. So  
18 we have asked him to review and he provided his  
19 review.

20 Then we went to Professor Benson, who is a  
21 professor at University of Wisconsin, and his  
22 expertise is in the lining system, so we had him  
23 review that part.

24 We had Professor Kavazanjian, who is  
25 expert in overall landfill design issues, and he has

1 pioneered many techniques on that, and we asked him  
2 to review.

3 Dr. Rudy Bonaparte, who is our -- works  
4 for our company -- he's our president. He has been  
5 the -- he has spearheaded earlier EPA documents  
6 related to lining systems, related to CQA, which is  
7 construction quality assurance, so he has  
8 co-authored or authored those things. So we had  
9 asked him to review.

10 MS. VIOLA: I have the resumes for the  
11 individuals that he's referring to and I would move  
12 into evidence Exhibits A43, A44, A45 and A46, which  
13 will be the resumes for the individuals that Dr.  
14 Sharma has referred to.

15 MR. CHIPCHASE: Those I do object to,  
16 unless the witnesses are going to be present and  
17 subject to cross-examination.

18 MS. VIOLA: These are resumes essentially  
19 pertaining to the professional qualifications of the  
20 individuals that Dr. Sharma has testified to in  
21 relying upon in doing the landfill design. It's  
22 essentially documents that can be entered in, not  
23 essentially for the truth, but as to the weight of  
24 the evidence.

25 CHAIRWOMAN PINGREE: I'm sorry. I missed

1 that last part.

2 MS. VIOLA: I would argue that these  
3 resumes are admissible, are relevant to the  
4 proceeding in regards to Dr. Sharma's testimony in  
5 relying upon these experts for the landfill design.  
6 It essentially just outlines their expertise.

7 MR. CHIPCHASE: Same objection. I mean,  
8 Dr. Sharma can testify what he wants to testify  
9 about and I can ask him questions, but if we're  
10 going to be introducing information about witnesses  
11 who aren't present and subject to cross-examination,  
12 that's unfair.

13 MS. VIOLA: But it's not information that  
14 they would be testifying to. These are just the  
15 information related to their expertise which he has  
16 testified to.

17 CHAIRWOMAN PINGREE: Are these resumes?

18 MS. VIOLA: Yes.

19 CHAIRWOMAN PINGREE: That's fine. No  
20 problem.

21 MS. VIOLA: Dr. Kavazanjian would be  
22 Exhibit A43. Dr. Bray, Professor Bray, would be  
23 Exhibit A44. Dr. Bonaparte would be Exhibit A45 and  
24 Dr. Benson would be Exhibit A46.

25 MR. SANDISON: This is A43?

1 MS. VIOLA: Dr. Bray is --

2 MR. SANDISON: This is Bonaparte.

3 MS. VIOLA: Bonaparte is A45.

4 CHAIRWOMAN PINGREE: This is 43 through  
5 46?

6 MS. VIOLA: 43 through 46, yes. Bray is  
7 44. Kavazanjian is 43 and Benson is 46.

8 BY MS. VIOLA:

9 Q. Dr. Sharma, Mr. Miller also criticized  
10 Waste Management's air space calculations because he  
11 claims that it was based on erroneous assumptions.

12 Do you agree with this criticism?

13 A. What did he say?

14 Q. He criticizes Waste Management's air space  
15 calculation and he says that it's because it's based  
16 on erroneous assumptions.

17 A. Well, I don't know I can comment on -- if  
18 they say erroneous assumptions kind of statement  
19 without saying what assumptions were made. If I  
20 knew the assumptions made, then we can discuss about  
21 it.

22 But the air space calculations normally is  
23 a difficult one. It goes to two processes at the  
24 site. One is how much total air space is within  
25 those boundaries and the heights, and I guess for

1 this size it's about -- about -- it's in the report  
2 -- about eight million cubic yards, somewhere in  
3 there. The issue probably comes up is based on  
4 that, how long this landfill is going to have it.  
5 The is life of the landfill.

6 That's a very difficult issue, because the  
7 waste stream, we know what was last year, what was  
8 two years before, three years before, and we  
9 probably can estimate what's going to be this year.  
10 But projecting the waste stream for two years, five  
11 years, ten years is very difficult. So normally,  
12 normally when they do the assumption, they have the  
13 total air space. That's relatively easy -- it's not  
14 easy, but a relatively definite number.

15 What they normally do is, every year,  
16 every landfill, they take the survey of the top of  
17 the landfill and the next year they take the survey  
18 of the top of the landfill and each year they take  
19 it, and that's how they find out how much waste was  
20 each year. There's a little bit complication  
21 because each year you place, next it settles. So  
22 what happened to the old base is a kind of  
23 assumption there. But nothing can you do about it.  
24 So based on the last three, four, five years, they  
25 take average waste stream -- the term used is how

1 much -- how many cubic yards per year, and now you  
2 have eight million cubic yards total air space. You  
3 estimate in past history, say 40,000 cubic yards a  
4 year. Then you divide them and supposed to come to  
5 20 years. That's how you -- but that keeps on  
6 changing. The next year you may find different.  
7 Either it's 20 years or 19 years or 22 years, 18  
8 years, 23 years. It keeps on changing. That's the  
9 short way of estimating the air space and the life.

10 The statement made here doesn't say  
11 anything what the questions are. They simply say  
12 erroneous, so I don't know. I can't comment on  
13 that.

14 Q. Do you feel that Waste Management's air  
15 space calculation is accurate?

16 A. Again, I don't know. Because they did it.  
17 I haven't done it. But Waste Management does it  
18 quite routinely, not only this landfill, every  
19 landfill. That's how they -- any company like Waste  
20 Management or other companies, they forecast their  
21 revenues, they forecast their -- the life of the  
22 landfill. So it is -- I will hope it is to their  
23 advantage to be as accurate as possible based on the  
24 information they have and based on techniques that  
25 are available. That's all I can say. Other than



1 that, I don't know.

2 Q. In your experience over the years with  
3 landfill design, have you observed how long it takes  
4 to get a landfill up and running from selection to  
5 operation?

6 A. I'm sorry?

7 Q. In your experience with landfill design,  
8 have you observed how long it takes to get a  
9 landfill up and running from selection to operation?

10 A. Well, again, the siting is not my  
11 expertise. In landfill business, the operations is  
12 one expertise, construction is another expertise,  
13 design is expertise, siting is expertise. So you  
14 cannot be expert in all those areas. I am landfill  
15 expert.

16 However, as a generalist, because I work  
17 in landfills, I have observed in '80s and '90s there  
18 were many new landfills were being sited, not the  
19 expansion of existing landfills, but completely new,  
20 and I was involved in some of them. I know some of  
21 them. They took about seven to ten years, depending  
22 upon the complexity.

23 Now, in the 2000s and then now -- I don't  
24 remember in California, which I'm aware of, a  
25 completely new site has been approved. They may

1 have started before -- they were approved but they  
2 didn't start at that time. And California being  
3 very sensitive environmentally -- and I think Hawaii  
4 is equally sensitive environmentally -- I'm sure it  
5 would probably take even longer than seven to ten  
6 years.

7 Q. If you learned that someone opined that it  
8 would take only three years from start to finish,  
9 would you have reason to question that opinion?

10 A. Yes, I would, because you can see that  
11 when we did the expansion for this landfill, we knew  
12 the landfill site is here and we knew all other  
13 factors in there. We started designing it -- I may  
14 not be exactly correct on the dates, but we probably  
15 started in 2006 or seven, and the construction began  
16 in 2010. That took two to three years or four  
17 years. And although there were some complexities in  
18 here, but -- three years, four years completely new  
19 site is not possible.

20 MS. VIOLA: Thank you. Nothing further.

21 MR. SANDISON: No questions.

22 MR. CHIPCHASE: Chair, at this time, can  
23 we take a short recess so that I can gather up my  
24 stuff and see what I actually have to ask Dr.  
25 Sharma, maybe 15 minutes?

1 CHAIRWOMAN PINGREE: Counsel, any  
2 objection?

3 MR. SANDISON: No objection.

4 MS. VIOLA: No objection.

5 CHAIRWOMAN PINGREE: We'll take a 15-  
6 minute recess. Let's be back at 10:20.

7 (Break taken.)

8 CHAIRWOMAN PINGREE: Thank you. We're  
9 back on the record.

10 MR. CHIPCHASE: Thank you, Chair.

11 MS. VIOLA: Cal, before you start, I just  
12 want to provide the commissioners with the updated  
13 minutes that were just published after the last  
14 proceeding.

15 CHAIRWOMAN PINGREE: You're providing us  
16 -- I'm sorry?

17 MS. VIOLA: The minutes from the site  
18 selection committee that were not available at our  
19 last proceeding. They include the agenda, the group  
20 memory, as well as the handout that was provided to  
21 the committee at the last meeting.

22 CHAIRWOMAN PINGREE: Okay. Thank you.

23 (Mr. Pacopac not in attendance.)

24 MR. CHIPCHASE: Dana, is this an exhibit?

25 MS. VIOLA: I guess I can enter it as

1 Exhibit A47.

2 MR. CHIPCHASE: No objection.

3 MS. VIOLA: The original packet, like I  
4 indicated last time, we had provided in December,  
5 pursuant to a request from Commissioner Dawson, all  
6 of the agendas and minutes and documents that were  
7 available at that point. So we did provide the  
8 minutes and all of the relevant documents to the  
9 committee before. So essentially, I'm continuing  
10 with that production, but we'll enter it as an  
11 exhibit.

12 CHAIRWOMAN PINGREE: Please. A47?

13 MS. VIOLA: 47.

14

15 E X A M I N A T I O N

16 BY MR. CHIPCHASE:

17 Q. Good morning, Dr. Sharma.

18 A. Good morning.

19 Q. My name is Cal Chipchase. I represent Ko  
20 Olina Community Association and Senator Maile  
21 Shimabukuro.

22 Do you know where Ko Olina is located  
23 relative to the landfill?

24 A. You know, they're on the left-hand -- on  
25 the left side of the freeway. I don't know exactly.

1 Q. That's Ko Olina. Okay. Dr. Sharma, first  
2 I'd just like to understand the scope of what you  
3 looked at in preparing for today's testimony, so let  
4 me walk you through a couple of things and you can  
5 tell me whether you looked at it or didn't look at  
6 it and what you considered. Okay?

7 A. Sure.

8 Q. I believe you said that you reviewed Mr.  
9 Miller's written declaration.

10 A. Yes.

11 Q. And you reviewed Mr. Miller's -- or rather  
12 Parametrix's design and operation review technical  
13 memorandum; is that right?

14 A. Yes.

15 Q. That's Exhibit K146. Did you review the  
16 transcript from Mr. Miller's testimony before the  
17 Planning Commission?

18 A. I think I looked at it. I may not have  
19 reviewed it in detail, but I had a chance to look at  
20 it.

21 Q. Did you look at the other technical  
22 memoranda prepared by Parametrix in this matter?

23 A. Which were the other ones?

24 Q. Other technical memoranda -- for example,  
25 did you look at the Site Selection Evaluation

1 Technical Memorandum, Exhibit K147?

2 A. I probably may not have, because this is  
3 not design related, because I have land expertise.

4 Q. So this would be outside your expertise?

5 A. Yes.

6 Q. I understand. Did you review the  
7 Waimanalo Gulch Landfill Alternatives Analysis  
8 Technical Memorandum? That would be Exhibit K148.

9 A. No.

10 Q. Going back to the Design and Operation  
11 Review Technical Memorandum, Exhibit K146, did you  
12 review all of the references cited in the  
13 memorandum?

14 A. Yes, I did. Yes.

15 Q. Were there any other references or other  
16 materials, other than what we've covered, that you  
17 reviewed in preparing for your testimony today?

18 MS. VIOLA: Objection. Clarification of  
19 "what we've covered." Is that just what you're  
20 referring to --

21 MR. CHIPCHASE: I'm sorry. I'll be more  
22 precise.

23 BY MR. CHIPCHASE:

24 Q. Dr. Sharma, other than what you and I just  
25 talked about, the technical memorandum, the

1 references cited therein, Mr. Miller's declaration,  
2 and looked at but maybe not reviewed thoroughly his  
3 testimony -- other than those materials, are there  
4 any other materials you reviewed in preparing for  
5 your testimony today?

6 A. No. I don't recall -- don't recall.

7 Q. Dr. Sharma, I believe I heard you say --  
8 and I'm really just looking for clarification here  
9 -- that you heard that the landfill was running out  
10 of space and that's why the diversion channel and  
11 the construction and filling of the cells had to  
12 occur at the same time.

13 A. The landfill -- no. Landfill was not  
14 running out of space, but there was not enough space  
15 to place that waste without affecting the stability  
16 -- because there may be some areas where you could  
17 place the waste, but if you place the waste up in  
18 here and there's not enough abutment down, it may be  
19 unstable. So there may be areas where you may have  
20 space, but the right space for landfill was not  
21 available.

22 Q. I see. So there was not space where you  
23 could safely place waste?

24 A. Yes.

25 Q. I believe you also said that you'd heard

1 that the storms in December were contained by the  
2 temporary diversion that was in place during the  
3 simultaneous construction.

4 A. That's what I had been told. As I said,  
5 surface water is not what we have designed. That's  
6 what I've been told.

7 Q. Okay. On the same subject of matters that  
8 are not within your expertise -- you talked a little  
9 bit about siting. I understand that's not within  
10 your expertise and I appreciate that. Do you know  
11 who Frank Doyle is?

12 A. Is he here?

13 Q. Yes, he is. Do you understand that Frank  
14 Doyle, among other jobs, has been the chief of the  
15 refuse division for many years in Honolulu?

16 A. Well, I've not worked with Frank Doyle,  
17 but I know Mr. Doyle was here. My all the dealings  
18 have been with Waste Management project managers.

19 Q. Just so you and I are on the same page,  
20 I'd just like to read for you a little bit about Mr.  
21 Doyle's background and then we can continue our  
22 talk. Okay?

23 A. Sure.

24 Q. This is from a transcript of hearing held  
25 on Wednesday, July 1st, 2009, before the Planning



1 Commission. Mr. Doyle is testifying. I'll just  
2 read you a little bit about his background so you  
3 and I know really the same things.

4 This is Mr. Doyle. Quote: I have a  
5 bachelor's degree from the Pennsylvania Military  
6 College in Chester, Pennsylvania and a master's  
7 degree from the University of Hawaii, which I got in  
8 1976.

9 And what were those degrees in, what  
10 fields?

11 Both of them are in civil engineering and  
12 concentrating on environmental in my master's.

13 That's from page 176 of the transcript.

14 Mr. Doyle then goes on to talk about his  
15 work at the City and County of Honolulu, and this is  
16 on page 177 of the same transcript. I am chief of  
17 the division of refuse and that's in the Department  
18 of Environmental Services.

19 The question is: How long have you been  
20 employed in that position?

21 Mr. Doyle's answer is: Approximately 26  
22 years, roughly -- 32 years, actually, as chief of  
23 the division of refuse, but I do some other work as  
24 the deputy director of environmental services and  
25 the director of environmental services.

1           So that's Mr. Doyle's background.

2           Are you aware of how long it took the City  
3 to develop the landfill originally?

4           A.       No, I don't know.

5           Q.       Dr. Sharma, in the same testimony before  
6 the Honolulu Planning Commission, Mr. Doyle was  
7 asked how long did it take to identify Waimanalo and  
8 permit it and get it operational.

9           Mr. Doyle answers: Well, we went there in  
10 1987. It took about two and a half years.

11           Do you have any reason to disagree with  
12 Mr. Doyle's statements?

13           A.       No reason to disagree if that's what it  
14 says. The only reason -- yeah.

15           Q.       In earlier testimony before the Land Use  
16 Commission, Mr. Doyle was asked how long it would  
17 take to site a new landfill in Hawaii. I'll refer  
18 here to the transcript from the proceedings before  
19 the Land Use Commission held on March 27th, 2003.  
20 It's Exhibit K85.

21           In here, Mr. Doyle is talking about how  
22 long he expects the Waimanalo Gulch landfill to  
23 remain in operation. Mr. Doyle's answer on page 56  
24 of the transcript is -- I quote: And it was -- we  
25 had originally thought that we could have this

1 landfill operate for another 15 years, and as part  
2 of our discussion with the community and in trying  
3 to take a look at their concerns, it was reduced to  
4 a five-year operation.

5 One of the commissioners asked: That five  
6 years is based upon a timeline to establish a new  
7 site?

8 Mr. Doyle answers, quote: Yes, it does  
9 take that into consideration.

10 And then if I look at page 100 of the same  
11 transcript, Mr. Doyle testifies, quote: Our concern  
12 with that is the time it takes in order for us to  
13 move to actually get a new landfill established,  
14 because we do have to establish a new landfill. As  
15 you can see, the work on this particular project  
16 started in 1999. We think the time that's necessary  
17 for us to get us there is at least three, probably  
18 four years, just to get ourselves up and operational  
19 on that landfill site.

20 Do you have any reason to disagree with  
21 Mr. Doyle?

22 A. As I've said earlier, the siting is not my  
23 area of expertise, but you have to realize during  
24 1987 -- the regulations of landfills were -- came  
25 into effect in 19 -- October 1993. Prior to that,

1 the regulations were not that strong. That's why in  
2 the '80s you could site and build a landfill very  
3 quickly. You site and approve and build it.

4 In '90s, when these regulations in '93  
5 started coming up, in the beginning there was this  
6 catch-up thing. They were more flexible because  
7 regulations were coming so they said, Okay, let's  
8 allow them.

9 But my observations -- and it's only  
10 observation because I'm in the business -- is that  
11 after mid '90s and in 2000 and onward, it has been a  
12 long, drawn process. Two to three years, four years  
13 even for a completed new site is not -- in my  
14 opinion is not right number.

15 Q. These regulations you're talking about,  
16 they were in place when Mr. Doyle was testifying on  
17 March 27th, 2003?

18 A. Yes, they were.

19 Q. Let's turn to something, then, that you do  
20 have more familiarity with and that is your work and  
21 Geosyntec's work on the Waimanalo Gulch landfill.  
22 If I could have you look back at A38 that Ms. Viola  
23 handed you. It was the bibliography.

24 Dr. Sharma, when did you begin work on  
25 different projects at Waimanalo Gulch landfill?

1           A.       I do not know exactly.  Must be before  
2 2003, as it says here, but I do not recall exact  
3 dates.

4           Q.       I understand.  You remember, though, that  
5 you testified in a prior proceeding involving the  
6 Waimanalo Gulch landfill?

7           A.       Prior means before?

8           Q.       Before, yes.

9           A.       Yes, I did.

10          Q.       In 2009 you testified; right?

11          A.       Must be 2009.

12          Q.       In that proceeding -- this is just so we  
13 can establish dates -- you testified that you were  
14 first asked to do design work for Waimanalo Gulch  
15 Sanitary Landfill somewhere in the late '90s, '98,  
16 '99, that time frame, I would say.

17                   Does that sound about right?

18          A.       I said time frame, so it could be two,  
19 three years later.  Could not be two, three years  
20 earlier.  Well, that time frame.

21          Q.       So somewhere between 12 and 14 years  
22 you've been working on the landfill?

23          A.       Yeah.  2000 -- 1998, '99, 2000, 2001, I  
24 may have started working there.

25          Q.       Since that time, you directly or others in

1 your company prepared a number of reports and  
2 evaluations and studies for the landfill?

3 A. Yes.

4 Q. Some of those are recounted here on  
5 Exhibit A38; right?

6 A. Yes.

7 Q. So I don't mean for us to go through every  
8 single one --

9 A. Some of them may not be here. We don't  
10 know.

11 Q. Just my rough math on Exhibit --

12 A. There's 25 of them.

13 Q. That's what I came up with, so good.  
14 About 25 different reports perhaps by you directly  
15 or your firm; right?

16 A. Yes.

17 Q. The bibliography, A38, stops in 2010, if  
18 I'm reading the report dates correctly.

19 A. Yes. That is correct.

20 Q. But I understand that you've done work at  
21 least into 2011 on the landfill. Right?

22 A. Yes, we have. And there may have been  
23 some letters and reports, yes.

24 Q. So these are just examples, but I have  
25 here a letter from you dated February 22nd, 2011 to

1 Richard T. Von Pein.

2 A. Von Pein.

3 Q. Von Pein. Thank you. This is an example  
4 of other work you've done for the landfill?

5 A. Yes. There have been many letters like  
6 that.

7 Q. Okay. So in addition to the 25 different  
8 reports and things from Geosyntec, many other  
9 letters and maybe some even other reports and --

10 A. Yes, probably other letters.

11 Q. I understand. Work you've done or  
12 Geosyntec has done for the landfill; right?

13 A. Uh-huh.

14 Q. I'm sorry. You have to say yes or no.

15 A. Yes. Yes. Yes. Sorry.

16 Q. That's okay. Dr. Sharma, I assume  
17 Geosyntec has been paid for its work.

18 A. Yes.

19 Q. Are you aware that of all the other  
20 landfills in the state of Hawaii, in the last five  
21 years no other landfill has been cited for as many  
22 regulatory violations as the Waimanalo Gulch  
23 landfill?

24 A. I'm not aware of that.

25 Q. Do you know who Steven Chang is?

1 A. Yes.

2 Q. Who is he?

3 A. He works for Department of Health.

4 Q. Chief of the Solid and Hazardous Waste  
5 Branch; right?

6 A. Yes.

7 Q. I'd like to show you a transcript from his  
8 testimony in this proceeding. The transcript is  
9 testimony dated January 25th, 2012, and it's at the  
10 bottom of page 39 and the top of page 40. I'll read  
11 it first and then I'll show it to you.

12 Question, from me: Looking at those other  
13 landfills, the other landfills in the state, are you  
14 aware of any that have had as many findings of  
15 violations as Waimanalo Gulch Sanitary Landfill in  
16 that same five-year period?

17 Mr. Chang answers: In the last five  
18 years, probably not.

19 A. This is his testimony?

20 Q. Yes. Do you see that? I'm showing you  
21 his testimony there.

22 A. Yes.

23 MR. CHIPCHASE: No further questions.  
24  
25



## E X A M I N A T I O N

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BY MS. VIOLA:

Q. Dr. Sharma, do you know how many municipal solid waste landfills there are on Oahu?

A. No. I only know one.

Q. And that's Waimanalo --

A. Waimanalo Gulch.

Q. So as far as you know, there's no other landfill that accepts municipal solid waste?

A. Yes.

Q. As far as you know, the Waimanalo Gulch landfill, is that the largest landfill on Oahu?

A. Yes.

MS. VIOLA: Nothing further.

MR. SANDISON: No questions.

CHAIRWOMAN PINGREE: Commissioners, any questions for Dr. Sharma?

MS. DAWSON: I have one.

CHAIRWOMAN PINGREE: Commissioner Dawson, please go ahead.

## E X A M I N A T I O N

BY MS. DAWSON:

Q. Dr. Sharma, you earlier indicated that the liners that are installed in a landfill -- I thought

1 you said that they have a life of about a year and  
2 then they are -- what happens at that point?

3 A. What I said was if you expose those liners  
4 to --

5 Q. To the atmosphere?

6 A. -- to the atmosphere, then they start  
7 deteriorating. They do not completely deteriorate,  
8 but there are properties of them, the puncture-  
9 resistance, the tensile strength, those kind of  
10 things, they start going down and down. So the  
11 factor of safety which I mentioned earlier, those  
12 factors of safety start going down. Because the  
13 material properties' strength, puncture-resistance  
14 and those kinds of things deteriorating, the factor  
15 of safety will go down.

16 Q. So I understand you that as long as they  
17 are covered with either debris or dirt or whatever,  
18 there is no deterioration.

19 A. There has to be properly covered, too, and  
20 if somebody covers with larger particles or some --  
21 some material which is very porous, then the  
22 deterioration will be there. Otherwise, the  
23 deterioration will not be there.

24 Q. So can we assume that the original liners  
25 were installed in 1980 something, '87, according to

1 your testimony, the original, when the landfill was  
2 first --

3 A. For the landfill?

4 Q. Yeah.

5 A. Yeah. It was before my time.

6 Q. All right. So you started in what year?

7 A. Somewhere -- I would say the same thing;  
8 somewhere in 1998 to 2000, around that time frame.

9 So the construction, I think, at this  
10 landfill was early '90s, if I'm not mistaken. So it  
11 was before my time.

12 Q. So can we assume then that if the covering  
13 from your time forward is perfect, there are no --

14 A. No other violations or deviations?

15 Q. -- no violations -- if we make that  
16 assumption, do we assume that all of the landfills  
17 that were -- I mean, all of the liners that were  
18 installed during this period forward are in perfect  
19 condition?

20 A. They should be in good condition.

21 Q. In good condition?

22 A. Yeah. They should be in good condition.

23 And there's a big debate on that one. I  
24 would not go through that. But many landfills, they  
25 have exhumed the old liners and they have found that

1 they do perform their function properly with time.

2 Q. Are those liners -- can leachate permeate  
3 any of those liners at any time, assuming they're in  
4 reasonable condition?

5 A. No, they should not.

6 Q. Should not?

7 A. Yeah, they should not. And sometimes if  
8 there is some leachate, then the wells are there to  
9 find out. There are wells all around, monitoring  
10 wells, where they will say whether the leachate has  
11 permeated or not.

12 Q. So leachate goes out to the sides, then,  
13 and accumulates and what happens to it then?

14 A. Then it will show in the wells, the  
15 monitoring wells, and that's why there is always  
16 this -- one is a design issue. Then there's the  
17 long-term performance issue. And so the performance  
18 you always monitor. If those wells show any sign of  
19 leachate coming -- I don't know if at this site they  
20 have found -- if they see -- and this is a normal  
21 procedure in all the landfills in the United States  
22 -- then they would do -- they would be asked to do  
23 the remedial measure. But we haven't -- I think we  
24 haven't had that problem here.

25 Q. As you described the site, the site is

1 steep on the sides and surrounded by further  
2 steep --

3 A. Yeah. It's like --

4 Q. -- surrounding it?

5 A. Yeah. It's like that.

6 Q. So doesn't that mean that whatever  
7 collections there are, whether it's leachate or gas  
8 or whatever, what have you, they are all going to go  
9 towards the center?

10 A. Yes.

11 Q. It can't go out to the side because of  
12 this --

13 A. Because of the canyon.

14 Q. -- because of the slope of the land?

15 A. Yes.

16 Q. So does that just remain there?

17 A. No, no, no. Because for each cell, the  
18 way the design is -- if you could -- well, that's  
19 okay. The design is we have a sump -- we have sumps  
20 at the low points. Like E6 cell here, there's a  
21 sump there, and in that sump there's a riser pipe  
22 coming out, and then the pump goes down and the pump  
23 vertically pumps the leachate out of it.

24 Q. I understand that. And then, of course,  
25 there are berms further on down that would prevent

1 that from going any further if they weren't pumped  
2 out?

3 A. (Witness nods.)

4 Q. When the landfill was initially installed  
5 -- I believe you said it was -- the original  
6 statement was that it was intended to be there for  
7 five years.

8 Was the original intent of the landfill  
9 for --

10 A. I don't know that. No, I don't know.

11 Q. But at the point that you came on board,  
12 what was the longevity that was estimated at that  
13 time?

14 A. Again, those are the planning for the  
15 Waste Management. I do not know exact years they  
16 had. When I was employed, I was asked to do -- I'm  
17 a design engineer and I was asked to review what was  
18 done previously, they're stable and safe, and would  
19 you recommend anything. That's what I did.

20 Then they said, Okay, this is the area  
21 where we want to expand. You have to prepare the  
22 report, permit report. We did that.

23 And then the further expansion, we did  
24 that. But I would not know the number of years.

25 Q. I understand that. When you first came on

1 board and you were assessing the design at that  
2 point, I presume, did you find anything that led you  
3 to believe that there were defaults or -- either  
4 defaults or violations that required new design?  
5 Did you find that?

6 A. Yes, I did. At that time, the lining  
7 system material properties were based on -- based on  
8 -- I'm talking from my memory now -- the supplier's  
9 testing, and that was -- a majority of the time,  
10 that's what they used to do, because any time a new  
11 material comes in, you rely on what is available in  
12 the literature or what was available in the  
13 suppliers, and that's what the previous designer  
14 used.

15 As time went on, as we gained experience  
16 on this -- and we, Geosyntec, are in the forefront;  
17 we do more than the others -- so we brought that  
18 issue to Waste Management, that these are the  
19 properties, based on this, and it was okay at that  
20 state of the practice -- state of practice is a  
21 function of geography and the time -- and so that  
22 were okay, but now it is not and so you should make  
23 sure -- and we can only recommend it. It's their  
24 job to fix it.

25 And so we recommend it and it was reviewed

1 by Waste Management engineers and they finally said,  
2 Yes, we would like it to make safer, even if there  
3 are some -- we lose some air space, we have to do  
4 something, but we'd like to make it -- so my  
5 recommendations were accepted.

6 Q. In the years prior to the heavy rainfall  
7 that produced the disaster of the medical waste  
8 going down into Ko Olina, I presume you were there  
9 at that time.

10 A. You mean I was at the site at that time?

11 Q. Yes.

12 A. No, I was not. I was actually traveling  
13 overseas when this thing happened.

14 Q. So you came back after the occurrence of  
15 this accident?

16 A. Yeah. After the -- I came back sometime  
17 late December 2010.

18 Q. Your design background, after you did  
19 review the events that happened at that time, did  
20 you have any opinion as to why that occurred and  
21 what could be done to prevent it in the future? Did  
22 you have any opinion on that?

23 A. Well, the opinion was not solicited from  
24 me. At that time, the issue was what do we do now.  
25 These opinions can take their time. At that time,



1 the main issue was to protect the human health and  
2 environment, what we should do now. That's what I  
3 was --

4 Q. Yes. But also, were you not tasked with  
5 designing preventive measures to see that this did  
6 not happen again?

7 A. There are two issues there. One is, I was  
8 asked to fix the issues, what happened. That's what  
9 I did.

10 And the second issue is a very simple --  
11 we later on found out it was very simple. If we had  
12 a diversion channel built, this thing would not have  
13 happened. Design required the diversion channel,  
14 required the pipes and the structures. If they were  
15 built at that time, this thing would not have  
16 happened.

17 MS. DAWSON: Thank you.

18 THE WITNESS: Thank you.

19

20 E X A M I N A T I O N

21 BY CHAIRWOMAN PINGREE:

22 Q. Doctor, just a very brief question. Would  
23 you kindly recap the issue behind the diversion  
24 system, as to why it wasn't in place when this  
25 terrible storm occurred?

1           A.       If I understand the question, you're  
2 asking that why didn't they have the diversion  
3 channel in place --

4           Q.       Yes.

5           A.       -- prior to this storm.

6           Q.       Correct.

7           A.       And it was intended to be. The plan and  
8 design was intended to have that. And the  
9 construction had already started.

10                    But my understanding is that during this  
11 process, the landfill expansion area, there was  
12 approval to go ahead and there was some issue about  
13 archaeological factors and that was the last hurdle  
14 to get approval for construction in that area.

15                    So we were -- we were going to construct  
16 them both sequentially, not place the waste before  
17 the diversion channel is completed. And when this  
18 thing was approved, the go ahead now and construct  
19 it, within two weeks Waste Management started  
20 mobilizing and constructing it.

21                    Unfortunately, this waste had to be placed  
22 somewhere. Nowhere else was there space. So they  
23 placed in that area, and then again, unfortunately,  
24 the God's action, the more-than-expected rainfall  
25 came in and they all coincided at the same time.

1           Design-wise, it was supposed to be the way  
2 it was -- if it was built and constructed like that,  
3 the issue would not have come up. We would not have  
4 had this problem.

5           Q.       So there was no other space to put this  
6 waste?

7           A.       There were spaces, but there were no other  
8 space where you could safely put that amount of  
9 waste. Because if you put it somewhere at the top,  
10 well, still it was --

11                   CHAIRWOMAN PINGREE: Thank you.

12                   THE WITNESS: Thank you.

13                   CHAIRWOMAN PINGREE: Any other questions?  
14 Thank you, Dr. Sharma.

15                   THE WITNESS: Thank you.

16                   CHAIRWOMAN PINGREE: We appreciate your  
17 time.

18                   MS. VIOLA: Could I suggest -- and counsel  
19 can weigh in -- that we take an early lunch so we  
20 can take Mr. Steinberger in one block, so we don't  
21 have to start him now and then break for lunch and  
22 finish with him in the afternoon?

23                   CHAIRWOMAN PINGREE: That's fine with the  
24 commissioners. We'll ask counsel.

25                   MR. CHIPCHASE: I'd just like to know how

1 long do you expect you'll go on just direct?

2 MS. VIOLA: A little longer than Mr.  
3 Sharma. So how long was I; about an hour? About an  
4 hour and half with him, I think.

5 MR. CHIPCHASE: Well, we could finish  
6 direct and then start cross right after lunch.

7 MS. VIOLA: I don't think I'll finish  
8 within an hour.

9 MR. CHIPCHASE: All right. If that's the  
10 representation, then I have no problem.

11 CHAIRWOMAN PINGREE: Right now it's 10:55.  
12 We'll resume at noon. Thank you.

13 (Lunch recess.)

14 CHAIRWOMAN PINGREE: We're back on the  
15 record.

16 MR. CHIPCHASE: Chair, before we take up  
17 the ENV's next witness, the court reporter pointed  
18 out to me on the break that during our prior hearing  
19 she did not transcribe the video clip that was  
20 played for Director Gill, so I'd like to provide her  
21 with a copy of just those sections that I played for  
22 the commission so that she may transcribe them and  
23 they form a coherent part of the transcript.

24 CHAIRWOMAN PINGREE: Counsel?

25 MS. VIOLA: No objection.

1 MR. SANDISON: No objection.

2 CHAIRWOMAN PINGREE: Thank you. Yes.

3 I think we're going to begin with ENV.

4 MS. VIOLA: The City would like to recall  
5 Tim Steinberger.

6 CHAIRWOMAN PINGREE: Dana, can you recap,  
7 again, the scope of the rebuttal? That was the  
8 lengthy one we heard the last time?

9 MS. VIOLA: Yes.

10 CHAIRWOMAN PINGREE: Okay.

11 MS. VIOLA: In general, Tim Steinberger  
12 will be rebutting statements made by Mr. Miller  
13 regarding alternative disposal options, operation of  
14 the Waimanalo Gulch Sanitary Landfill, engineering  
15 standards as followed by Mr. Miller, and  
16 archaeological concerns as stated by Mister --  
17 archaeological and cultural concerns as stated by  
18 Shad Kane.

19 And I can go through -- do you want me to  
20 go through all the specifics?

21 CHAIRWOMAN PINGREE: I think we had heard  
22 it prior. You had read it prior.

23 MS. VIOLA: Yes.

24 CHAIRWOMAN PINGREE: As I recall, it was  
25 pretty broad.

1 MS. VIOLA: Yes.

2 CHAIRWOMAN PINGREE: Okay. Thank you.

3 MS. VIOLA: Thank you.

4 CHAIRWOMAN PINGREE: Mr. Steinberger,  
5 would you kindly raise your right hand?

6

7

TIMOTHY STEINBERGER,

8 called as a witness, being first duly sworn to tell

9 the truth, the whole truth and nothing but the

10 truth, was examined and deposed as follows:

11

12

E X A M I N A T I O N

13

BY MS. VIOLA:

14

Q. Good afternoon, Mr. Steinberger. I'd like

15

to address something that came up just from this

16

morning's testimony. Were you here for this

17

morning's testimony?

18

A. Yes, I was.

19

Q. So you heard Mr. Chipchase ask questions

20

of Dr. Sharma regarding Frank Doyle's testimony

21

regarding the length of time it would take to permit

22

and operate a new landfill site?

23

A. Yes, I did.

24

Q. And you heard him referring to testimony

25

which essentially said that --

1 MS. VIOLA: And, Mr. Chipchase, correct me  
2 if I'm wrong.

3 BY MS. VIOLA:

4 Q. -- that the initial development of the  
5 landfill was in 1987 to approximately 1989, that  
6 period of time, two years, according to Mr. Doyle,  
7 and three years for the development of the new site?

8 MR. CHIPCHASE: The transcript says what  
9 it says.

10 BY MR. VIOLA:

11 Q. Mr. Steinberger, are you aware of what  
12 transpired in the previous proceedings in which Mr.  
13 Doyle testified?

14 A. I was at some of those hearings back in  
15 2009, yes.

16 Q. I'm going to read to you a portion of the  
17 transcript of the same date that -- this is the July  
18 1st, 2009 hearing date, and this was testimony or --  
19 questions by Kerry Komatsubara. This is page 260 of  
20 that transcript -- questions from Commissioner  
21 Komatsubara to Mr. Doyle regarding this same issue,  
22 the siting of the new landfill.

23 And Mr. Komatsubara states: I want  
24 clarification to the question that Ms. Gaynor --  
25 that would be referring to another commission member

1 -- asked about how long it takes to permit a new  
2 site. I think you said about two years, three years  
3 or so.

4 And Mr. Doyle's response is: No, no. I  
5 believe the question was for the original Waimanalo  
6 Gulch, and I answered that about two or three years,  
7 and it was probably a little -- it probably was the  
8 three years for sure, but --

9 And if I move down a little further, Mr.  
10 Komatsubara asks: But that was the permitting  
11 process. And he says, I guess my question is: How  
12 long does it takes for the whole process,  
13 identification of the new site, blue ribbon  
14 commission hearings, EIS, site selection, hiring the  
15 contractors, going through the procurement process,  
16 going through the protest process, building,  
17 construction and opening the doors? How long does  
18 it take? And he states the question again: And the  
19 reason why I ask it that way, I want to make sure no  
20 one has the impression that in two years we're going  
21 to have a new landfill.

22 And Mr. Doyle's response is: No, no,  
23 absolutely not. We're looking at seven plus.

24 Mr. Steinberger, is that your  
25 understanding of Mr. Doyle's testimony, that it was



1 more seven plus or -- at a minimum, seven years to  
2 site a new landfill?

3 A. Yes. That is my understanding.

4 Q. And this is in the 2009 proceeding which  
5 Mr. Chipchase referred to in his earlier testimony  
6 -- in his earlier questioning?

7 MR. CHIPCHASE: Actually, that's a  
8 misstatement. The siting of a new landfill, I read  
9 from the 2003 transcripts, and I specifically noted  
10 that in the question. The 2009 transcript was only  
11 for the siting of the original landfill.

12 CHAIRWOMAN PINGREE: Okay. So noted.

13 MS. VIOLA: I'm sorry. The siting for  
14 the --

15 MR. CHIPCHASE: A new landfill, I read  
16 from the 2003 proceeding.

17 MS. VIOLA: The 2003 proceeding.

18 BY MS. VIOLA:

19 Q. In the 2009 proceeding, as far as you  
20 understand, Mr. Steinberger, Mr. Doyle's testimony  
21 was that it would take at least seven years to site  
22 a new landfill?

23 A. That's correct.

24 Q. As far as you know, did the Planning  
25 Commission rely on that representation, that seven-

1 year representation?

2 A. I believe so.

3 Q. In their order, did they refer to Mr.  
4 Doyle's estimation of seven plus years?

5 A. I believe so.

6 Q. I also wanted to ask you questions  
7 regarding the circumstances leading to the  
8 concurrent construction of the western drainage  
9 system as well as the operating cell E6.

10 Dr. Sharma testified that his  
11 understanding was that the intention was to build  
12 the western drainage diversion system prior to  
13 opening the cell for collection of waste.

14 Was that your understanding, as well?

15 A. Yes, it was.

16 Q. What was your understanding as to the  
17 reason why the concurrent construction was  
18 essentially allowed?

19 A. Well, the process began actually prior to  
20 2009, and I have to say this is before I was with  
21 the City, and that started with the EIS. And as I  
22 understand, the EIS, after it was completed, was  
23 contested, which took time, and then, of course, it  
24 came to the Planning Commission, of which there were  
25 intervenors involved, which also created delays.

1           Once the decision was rendered by the  
2 Planning Commission and went over to the Land Use  
3 Commission, the process continued. So it went on  
4 for quite some time before the SUP could actually be  
5 issued.

6           So given that you cannot go onto the site  
7 and start your work until you have the necessary  
8 permit, it sort of put Waste Management and the City  
9 at a great disadvantage, because during this time  
10 you're still transporting waste to the landfill, and  
11 they were rapidly coming to the end of the capacity  
12 of the permitted cells.

13           So the Department of Health recognized  
14 this, and in the Department of Health's permit that  
15 they finally issued, they allowed the concurrent  
16 construction, knowing that if there was not access  
17 to the landfill, that the public health issue would  
18 be monumental.

19           And so, you know, that was from my  
20 observation and that was what I lived with from 2009  
21 up until about 2010.

22           Q.     Mr. Miller criticized the Department of  
23 Environmental Services' use of biosolids or disposal  
24 of biosolids by stating that landfilling of  
25 biosolids is not done anywhere else in the country.

1           As far as you understand, is that  
2 accurate?

3           MR. CHIPCHASE: I think that's actually a  
4 misstatement. I'll make the same objection I had  
5 before, that I do not agree that the statements made  
6 reflect what Mr. Miller said. I don't intend to  
7 interrupt every question to insert that objection,  
8 but I note it for the record and we have the  
9 transcript to verify.

10 BY MS. VIOLA:

11           Q.       Let me clarify. Mr. Miller testified that  
12 landfilling of biosolids is not only archaic, but  
13 rarely done elsewhere in the U.S.

14                   Is that an accurate statement as far as  
15 you're aware?

16           A.       As far as I'm aware from reading the  
17 transcript, that is correct.

18           Q.       As far as you are aware, is the substance  
19 of that statement accurate?

20           A.       Well, given the information that we get  
21 from the National Association of Clean Water  
22 Agencies -- the anacronym is NACWA. This is a group  
23 of municipalities that deal mostly in water and  
24 wastewater issues -- the data they have shows that  
25 nationally about 28 percent of all biosolids is

1 landfilled.

2           And I'll just continue down giving you the  
3 data that I received from NACWA. 45 percent is land  
4 applied, and actually, that 45 percent includes what  
5 they would consider to be used as alternative daily  
6 cover. In other words, it actually goes to the  
7 landfill but it's used as a daily cover, so in a  
8 sense it's encapsulated in the landfill. There's  
9 also 17 percent that is incinerated, and currently,  
10 the EPA is changing their rules having to do with --  
11 having to deal with incinerated sludge, making it  
12 far more difficult to get permitted for  
13 incineration. So many of these municipalities that  
14 currently incinerate may be looking at other  
15 alternatives, such as land-filling or hopefully  
16 going to some type of a land application.

17           And to give you an idea -- I know this is  
18 on the landfill, but maybe just a little education  
19 on biosolids. When using the EPA definition, before  
20 biosolids are extracted from the wastewater and it  
21 goes into a separate treatment system, they refer to  
22 them as sludge. Once it goes into that treatment  
23 system and it exits the treatment system, they then  
24 call it biosolids. So we have raw sludge and  
25 biosolids.

1            Depending on the level of treatment, you  
2            get either what's called a class B or a class A  
3            biosolid, and the class A biosolid has the highest  
4            exceptional use. The class B has restricted uses to  
5            it, and the raw biosolids can only be either  
6            incinerated or land-filled, and so that's, you know,  
7            kind of a quick 101 of sludge.

8            So this is, you know, kind of the current  
9            status of biosolids across the United States.  
10           Currently, in Oahu, our largest treatment plant is  
11           Sand Island treatment plant and we treat the  
12           biosolids and we make a class A pellet which is  
13           close to being a fertilizer. They call it a growth  
14           enhancer at this point, and that is distributed --  
15           92 percent of that is distributed for beneficial  
16           reuse at nurseries and some -- for fodder as such  
17           or, I guess, for cattle. And then the other  
18           biosolids across the county are currently going to  
19           the landfill.

20           Now, back in 2009, we chose to go out with  
21           an RFP to do something with the biosolids, because  
22           my position is divert as much as you can from the  
23           landfill. So we started this process. We released  
24           an RFP. We got a respondent and we entered into a  
25           contract and they are now in the permitting process,

1 of which you heard that permit at the last time the  
2 Planning Commission met. So that facility is to be  
3 on line in 2013. So ultimately, all of the  
4 biosolids that are produced on Oahu will go into  
5 some type of a beneficial reuse as a class A  
6 biosolid.

7 Q. You referred to what is called land  
8 application --

9 A. Yes.

10 Q. -- of biosolids. Could you explain what  
11 that application is?

12 A. Land application is basically you're using  
13 it like a fertilizer. And I think they don't  
14 designate it as a fertilizer because that has its  
15 own requirements to classify it as a fertilizer,  
16 so they call it a growth enhancer.

17 On the mainland -- and I'll use Los  
18 Angeles as an example -- they bought several hundred  
19 acres up in Kern County, and the Los Angeles  
20 biosolids are class B biosolids, so it's of lower  
21 quality. They take it out and they spread it with  
22 spreaders across the acreage and they grow grass,  
23 and some of the grass is used as cattle feed and  
24 some of it is cut and allowed to compost, I guess,  
25 in the ground, and this is just an ongoing process.

1 San Francisco takes their biosolids up to  
2 Sonoma, Merced and Solano counties. Now, keeping in  
3 mind they have a lot of land in California and a lot  
4 of agriculture that goes on in California, so that  
5 is spread across the ground. This is also a class B  
6 biosolid.

7 For us, we only are using class A  
8 biosolids, because we don't have the luxury of  
9 having a lot of open land or a lot of agriculture to  
10 where you can use it. So we look at the highest  
11 quality of biosolids so that we can get the best use  
12 for it.

13 Q. So when you say this land application  
14 option -- are you saying that's not an option for  
15 Hawaii?

16 A. The Department of Health has only allowed  
17 one facility over in Kauai to use class B biosolid  
18 and that is for cattle, so what they're doing is  
19 they're growing forage crops.

20 Q. So if the Department wanted to land apply  
21 class B biosolids, would they have to get DOH  
22 approval for that?

23 A. Absolutely.

24 Q. So far, they have not gotten Department of  
25 Health approval for land application on Oahu?



1           A.       No, we have not.

2           Q.       In terms of Mr. Miller's statement that  
3 land-filling of biosolids is archaic, would you  
4 dispute that characterization?

5           A.       I think it's not desirable. I think that  
6 given what's going on in the United States  
7 currently, I don't think you could classify it as  
8 archaic, but certainly for Oahu it's not a desirable  
9 end of biosolids.

10          Q.       So what is ENV doing essentially to move  
11 away from the land-filling of biosolids?

12          A.       Again, we're going to continue with the  
13 manufacturing of pellets at Sand Island. Getting --  
14 we are having some funding issues with City Council  
15 right now.

16                   And we have entered into this contract  
17 with HER, which they're going to be composting  
18 biosolids with the City's green waste that we pick  
19 up throughout the island. Then that product will be  
20 distributed as a growth enhancer and it will be a  
21 class A.

22          Q.       Is the intent of the Department to divert  
23 all of the biosolids from land-filling?

24          A.       As much as we can. There's still the  
25 issue with the sewage treatment plants of what's

1 called screenings. This is material that comes in  
2 at the front of the plant and it's grit. Sometimes  
3 it's little pieces of metal and glass and such.  
4 That product will probably still have to go  
5 somewhere, and it will have to go to the landfill,  
6 because it has no -- it can't be combusted.

7 And the other facility that still has to  
8 deal with this issue is going to be Hawaii Kai.  
9 They're a privately-owned facility and they also  
10 will have to deal with what they're going to do with  
11 their biosolids, as well as their screening.

12 Currently, the military brings their  
13 screenings up to the landfill, as well.

14 Q. So you're stating that the screenings from  
15 the sludge --

16 A. Well, it's not from the sludge. It's just  
17 at the very entry of the plant.

18 Q. So the screenings that result from the  
19 wastewater going to the wastewater treatment plants,  
20 that product cannot be burned?

21 A. No. Like I said, it's a sandy, gritty  
22 material.

23 Q. So that material must go to the landfill?

24 A. It goes to the landfill, correct.

25 Q. Is there any reuse or reapplication method

1 that is used for screenings?

2 A. We have not seen any that have come out  
3 nationally.

4 Q. So even if you do maximum diversion of  
5 biosolids from the landfill, you're still going to  
6 have to landfill screenings?

7 A. We still have that small quantity that we  
8 have to deal with, yes.

9 Q. That would still have to go to the  
10 landfill?

11 A. It would still have to go to the landfill.

12 Q. What happens in the wet seasons for  
13 biosolid disposal, say, in California?

14 A. Well, in California, during the wet season  
15 what they do is they divert from the three counties  
16 where it's applied as a growth enhancer on the  
17 agricultural areas and it is then taken over to the  
18 landfill, and the current landfill that San  
19 Francisco is using is Livermore.

20 They are about to change to Yuba County at  
21 this point. I'm not sure if it's a contractual  
22 issue or if San Francisco wants to build their own  
23 landfill or what the issue is, but it's my  
24 understanding that their contractor -- it's actually  
25 a company called Recology -- is going to start

1 looking at Yuba County.

2 Q. So in the wet season in California, they  
3 still would landfill biosolids?

4 A. Yes. And what they will do is they will  
5 designate it as alternate daily cover. So they will  
6 still take credit as though it is a land application  
7 for beneficial reuse.

8 Q. But it's actually still going to the  
9 landfill?

10 A. Well, I guess it is getting encapsulated  
11 in the landfill, so, you know, call it what you  
12 want.

13 Q. All right. Let me ask you some specific  
14 questions. Mr. Williams, Mr. Ken Williams testified  
15 that ENV has not made reasonably diligent efforts to  
16 find alternatives for the landfill.

17 Do you agree with his statement?

18 A. No, I don't.

19 Q. Why not?

20 A. Well, first off, we have just engaged --  
21 actually, not just have. We're about to complete  
22 this year the H-POWER expansion. So we're now going  
23 to be able to handle an additional 300,000 tons  
24 annually of municipal solid waste. We're also  
25 looking at being able to process tires at that

1 facility. Most of the material that is now going up  
2 to the landfill is bulky material, and that  
3 material, we have a shredder that was put into the  
4 H-POWER unit. So now that material can also be  
5 processed at H-POWER and converted into electricity.  
6 So we're looking at, again, another source that is  
7 now going to the landfill, actually going to the  
8 H-POWER facility.

9 So I see -- right now, we're seeing about  
10 maybe 400 tons a day, on an average, coming into the  
11 landfill. This is going to significantly drop once  
12 we have the third boiler on line.

13 Q. When you say 400 -- I'm sorry.

14 A. 400 tons a day.

15 Q. A day?

16 A. A day.

17 Q. Is that of MSW?

18 A. That's -- actually, it's a lot of things.

19 It's special waste. It's some MSW. When H-POWER  
20 has taken its capacity -- right now it's running at  
21 about a little over 600,000 tons annually. And  
22 also, the bulky waste is going up there.

23 Now, one of the problems that we have with  
24 bulky, of course, is when we continue taking sludge  
25 to the landfill, we have to mix it with something

1 that will bulk up the material. So the bulky trash  
2 goes there, where it's busted up, and then the  
3 sludge is mixed in with the broken up bulky trash,  
4 and then that is compacted and then, of course, at  
5 the end of the day it receives its daily cover.

6 Q. So are you saying, then, that when the  
7 third boiler comes up and is up and running and if  
8 you're taking bulky waste, diverting the bulky waste  
9 from the landfill to H-POWER, will there be a  
10 problem with disposing of the biosolids at the  
11 landfill?

12 A. Well, we would -- this is why we want to  
13 end this practice of taking biosolids to the  
14 landfill. It's because if we divert fuel away from  
15 H-POWER to take care of the biosolids, it really is  
16 not much of a benefit to us as far as using a  
17 biomass to produce electricity. It's just going  
18 into the land, and so we're basically discharging  
19 some pretty good fuel in the landfill.

20 Q. So the ENV's intent is to divert not only  
21 the bulky waste, but as much sludge as possible?

22 A. Yes.

23 Q. Is it accurate to state that you will not  
24 be able to dispose of sludge or biosolids at the  
25 landfill without mixing it with bulky waste?

1           A.       If I don't have another alternative.  If  
2           I'm unable to either engage in this composting or a  
3           land application -- say if something went wrong with  
4           the facility up at Wahiawa and they had to go out of  
5           operation for a period of time, we'd have to do  
6           something with that material.  So that material  
7           would either go to the landfill, and as another  
8           option, of course, you can take it to H-POWER, but  
9           it has no fuel value whatsoever.

10          Q.       I'm sorry?  What --

11          A.       It doesn't have any BTU value to it.

12          Q.       What has no BTU value?

13          A.       Sludge.  The biosolids, once it's been  
14          digested.  So basically it just becomes another type  
15          of residual that will end up at the landfill.

16          Q.       So in diverting the biosolids from the  
17          landfill, the intent of the Department is to convert  
18          it to reuseable land cover?

19          A.       Reuseable, recyclable product.

20          Q.       As opposed to just incinerating it?

21          A.       As opposed to just incinerating t.

22          Q.       How long do you estimate before you'd be  
23          able to divert, I guess, what the ENV intends to  
24          divert from the landfill in terms of biosolids?

25          A.       Well, currently, according to HER's

1 schedule they hope to be operational sometime in  
2 2013. Of course, a lot of this depends on the  
3 permitting process.

4 Q. This HER contract, will that divert all of  
5 the biosolids that are currently going to the  
6 landfill?

7 A. HER did not want to utilize the biosolids  
8 from the Waianae treatment plant because it's very  
9 high in salt, so you don't want to have a very salty  
10 fertilizer, I guess. It doesn't do your plants any  
11 good. So that is another area that we're going to  
12 have to address, as to what to do with Waianae.

13 Q. So with HER, with that contract up and  
14 running, there still will be the issue of the  
15 biosolids coming out the Waianae wastewater  
16 treatment plant?

17 A. That's correct. Fortunately, it's a  
18 smaller treatment plant, so the volume and the  
19 weight is not large.

20 Q. But at this point, even with HER up and  
21 running, that will still have to go to the landfill?

22 A. At this point, yes.

23 Q. And there's still the issue of the  
24 wastewater treatment plant in Hawaii Kai that you  
25 wouldn't have control over?



1           A.       We have no control over them, that's  
2 correct.

3           Q.       Currently, that biosolids is going to the  
4 landfill?

5           A.       That's my understanding.

6           Q.       If the landfill is closed to municipal  
7 solid waste, including biosolids, on July 31st,  
8 2012, as far as you know, what will the biosolids  
9 coming from the Hawaii Kai treatment plant -- where  
10 will that go?

11          A.       I really don't have an answer for you on  
12 that one. I'm sorry.

13          Q.       Are you aware of them looking into any  
14 alternative disposal options?

15          A.       No. I've had some discussions with Mr.  
16 Mansville, who operates the facility, and I've told  
17 him that he needs to be aware of the issue. And  
18 this is a privately-owned company, so basically,  
19 they would have to figure out how they're going to  
20 deal with this.

21          Q.       None of that -- none of the biosolids  
22 coming out of the Hawaii Kai treatment plant is  
23 going to be incorporated into the HER contract then?

24          A.       No. They were not party to the contract.

25          Q.       And they're not party to the Sand Island

1 treatment facility, as well?

2 A. No, they're not.

3 Q. Currently, is H-POWER able to burn  
4 biosolids?

5 A. In its current position, boilers one and  
6 two, no, it could not.

7 Q. Once the third boiler comes up, will  
8 H-POWER be able to burn biosolids?

9 A. Once the third boiler comes up, we are  
10 making provisions for it to accept biosolids.

11 Q. Once the third boiler comes up,  
12 approximately when would H-POWER be able to burn  
13 biosolids?

14 A. It would probably be in the late fall.

15 Q. Of 2013?

16 A. No. Of 2012.

17 Q. Late fall of 2012, H-POWER would be able  
18 to burn biosolids?

19 A. That's what they're showing on schedule  
20 right now. Now, this was a change order to the  
21 contract that was recently made, so whether or not  
22 they run into delays on this, you know, is anybody's  
23 guess.

24 Q. Ms. Munson and I believe also Mr. Miller  
25 noted that electronic waste is still being dumped at

1 the landfill. Is it ENV's position or does ENV  
2 encourage the dumping of e-waste at the landfill?

3 A. No. But it is allowed by federal law and  
4 by the state Department of Health.

5 Q. So if a homeowner -- I'm sorry. It's  
6 allowed to whom?

7 A. Only to homeowners. Commercial is  
8 restricted. They cannot go to the landfill.

9 Q. But by law, homeowners still can dispose  
10 of it in the landfill?

11 A. Homeowners can, yes.

12 Q. So if a homeowner shows up at the  
13 landfill, essentially the landfill has to accept the  
14 e-waste?

15 A. As long as it is not a large quantity of  
16 e-waste. It has to be reasonable and look as though  
17 it is only a homeowners' e-waste.

18 Q. Can ENV control the homeowner?

19 A. As far as the amount of e-waste that they  
20 take to the landfill, yes, they do note that when  
21 somebody comes in -- say if somebody comes in with  
22 five or six TVs in the back of their pickup, they're  
23 going to be turned away. But if they come in with  
24 one TV, maybe a flat screen and an old CRT, they'll  
25 probably be allowed in.

1 Q. Can they turn away someone who has one TV?

2 A. No. They do not.

3 Q. What steps has ENV taken to, I guess,  
4 discourage disposal of e-waste at the landfill?

5 A. Well, as you may be aware, the state, a  
6 couple of years ago, started legislation to restrict  
7 e-waste, and what they asked for was the Department  
8 of Health to go out to the industry and require the  
9 industry to provide an alternative disposal type of  
10 means for e-waste. And this went on for some time  
11 -- I think almost for two years -- before they came  
12 back with the industry's plan. The industry's plan  
13 was you can box it up and mail it back to us at your  
14 expense and we'll take care of it, which obviously  
15 is not practical.

16 So at this point, you know, we continue to  
17 look at alternatives to e-waste. We know that there  
18 are processing companies out there that can handle  
19 e-waste. But, you know, it's -- e-waste has just  
20 been very difficult, because even if we do identify  
21 a location where you can take the e-waste, it's an  
22 issue of whether or not the homeowner will take it  
23 to that location or will they continue to set it out  
24 for bulky pickup. And of course, we do have the  
25 ability to restrict pick up of the e-waste by the

1 bulky crews, but then what will be the ultimate fate  
2 of that e-waste? Will it end up somewhere else as  
3 the illegal dump? So it's been difficult.

4 I know that we have had discussions about  
5 an advance disposal fee on e-waste, so that if you  
6 buy it, say, from Best Buy, Best Buy has to take it  
7 back. But they charge you when you buy it, and at  
8 that point you go back and you get the credit for  
9 returning it back in. So, you know, there's a lot  
10 of things that we've been looking at.

11 And with the new type of electronic waste  
12 that's coming out, we are always keeping our eyes  
13 open as to what are the components in the e-waste.  
14 Are there any type of pollutants that we really  
15 don't want to deal with? As you know, CFLs are  
16 really great for Hawaiian Electric, but they're not  
17 really great for landfills. When you used to buy a  
18 CFL, they gave you a mail-back box. They no longer  
19 do that. So now CFLs end up in the trash can. CFLs  
20 do have some material in it that is not really that  
21 friendly to the environment.

22 Q. Could you explain what a CFL is?

23 A. That's those coil fluorescent lights.

24 Q. There's also been some testimony,  
25 specifically from Ms. Munson again, that the intent

1 of the Department or the City is just to use the  
2 landfill forever, just go on and on forever using  
3 the landfill.

4 Is that the intent of the City and the  
5 Department?

6 A. Well, it's certainly not our focus. And  
7 it may be her opinion, but again, I think I've  
8 indicated that the name of the game for us is  
9 diversion, maximum diversion.

10 San Francisco, which is number one in the  
11 country, is at about 78 percent diversion. We're at  
12 72, 73 percent diversion. So we're looking very  
13 close to San Francisco. And I've set a goal out for  
14 the department of let's beat San Francisco, and we  
15 may do it. We just may do it.

16 Q. There also has been testimony regarding  
17 the lack of effort to seek looking at alternatives  
18 such as plasma arc gasification or vitrification.  
19 Is that an accurate representation?

20 A. Well, we actually went out with -- we've  
21 been out with two RFPs. One went out in about 2003  
22 time frame, I believe, and there was actually one  
23 proposal that came in that was evaluated. The  
24 original representation was that, you know, they  
25 could process using -- this would be a plasma

1 gasification type of system -- for considerably less  
2 than what H-POWER could, but in the end it turned  
3 out they needed at least \$160 a ton in order to  
4 process, and so right now --

5 Of course, back then our tipping fee was  
6 about \$80, and what we were receiving from -- what  
7 we were paying Covanta was roughly half of that. So  
8 they wanted \$160, plus that meant that we would have  
9 to increase our operating costs to accommodate that.  
10 So you could be looking at a tipping fee that was --  
11 could be as high as \$180.

12 So the other was the issue of financing  
13 was difficult. They couldn't get financing. They  
14 wanted the City to guarantee the bond, and in the  
15 end, they -- we decided not to enter into an  
16 agreement with them.

17 Q. As far as you know, what is your  
18 understanding of the reliability of the plasma arc  
19 gasification or vitrification facility?

20 A. Well, the one facility I've been kind of  
21 keeping fairly close track is the one that was built  
22 in Utashinai, Japan and it was a -- two modules.  
23 Each module was 80 tons, and it was intended to burn  
24 both automobile shredder waste as well as municipal  
25 solid waste.

1           As it turned out, the company that built  
2 this was Hitachi Metals and they were working  
3 closely with Westinghouse, and there was another  
4 smaller unit that had been built also in Japan, and  
5 so they thought it was just kind of a straight  
6 scale-up, because the smaller unit operated just  
7 fine. But when they scaled it up to these two 80-  
8 ton modules, they found out that it did not work, so  
9 they ended up having to redesign the whole thing.

10           So first off, they tried operationally for  
11 a couple of years trying to get it to work. Then  
12 they ended up having to completely rebuild the  
13 units, the two vessels, what they call the reactor  
14 vessels. And finally when they got the gasification  
15 to actually process, they found that the auto  
16 shredder waste created so much corrosives inside of  
17 the reactor vessel, that it actually was burning  
18 through the pipes, and so then they cut back on the  
19 automobile shredder waste and increased the  
20 municipal solid waste side.

21           And the other was they had a power  
22 generation agreement with the local electric company  
23 in Utashinai, and at the time when I visited the  
24 facility back in 2001, they were figuring it was  
25 going to take about one and a half megawatts to



1 power the facility and about another three megawatts  
2 that they could sell on grid. As it turned out, it  
3 was just the opposite. They were running about  
4 three and a half megawatts to operate the system and  
5 they were getting about one megawatt off -- onto the  
6 grid.

7 So given the problems that they had, they  
8 decided that now that they finally approached about  
9 the \$400 million mark in expenditures for this  
10 little 160-ton-a-day facility, at the end of this  
11 year they're going to close it down.

12 Q. Was there any history of plasma arc  
13 gasification in Hawaii?

14 A. Yes, there was.

15 Q. What happened with that project?

16 A. I believe the project was owned by the  
17 Hawaii Biowaste Group. I believe that was who owned  
18 it. It was actually a plasma arc facility. I won't  
19 go into a long explanation as to the difference  
20 between gasification and arc, but it was actually a  
21 plasma arc facility. It had a tremendous energy  
22 draw, so they'd only run it periodically. I think  
23 the amount of money that they got on return just was  
24 not what they could get from the generators of the  
25 medical waste.

1           They also had a series of problems with  
2 keeping it operational. So it appeared to be, as it  
3 was explained to me, it was down more than it was  
4 up, and they could only feed small portions at a  
5 time. They had to lower these five-gallon plastic  
6 buckets into the reactor vessel. So eventually,  
7 they ended up closing the facility.

8           Q.       Mr. Miller also criticizes the Department  
9 -- I guess the Department's investigation or looking  
10 into plasma arc by saying that calculations for  
11 plasma arc were not properly done, because it did  
12 not factor in the cost to dispose -- I think the  
13 cost to -- I think it was didn't calculate the cost  
14 of autoclave, the comparison.

15                    Would you agree with that representation?

16           A.       Well, as I understand it, the same company  
17 is the one that now autoclaves, and I think that the  
18 history says that somebody who's already tried  
19 plasma arc and has found that it is more cost  
20 effective for them to autoclave pretty much answers  
21 that question.

22           Q.       There has also been testimony from Mr.  
23 Hospodar that the City -- after the spill in January  
24 2011, that the City did not make any effort to  
25 respond or clean up.

1           Is that accurate?

2           A.     I would have to disagree with it.

3           Q.     Why?

4           A.     Well, for one thing, when the reports were  
5 coming in that there was both MSW and medical waste  
6 washing up on the shore in the Ko Olina area, Waste  
7 Management brought on a crew -- and this would have  
8 been the following day, because the reports were  
9 coming in rather late in the day -- to start going  
10 down the shoreline and collecting bags of waste that  
11 had washed out, and this was all waste, including  
12 just regular MSW that they were finding washing up  
13 on the shoreline.

14                 Also, we responded with crews out at the  
15 wastewater site to go out and start posting signs as  
16 well as taking water samples so that we could  
17 determine what the water quality was along the near  
18 shore areas, and these crews were working all the  
19 way from White Plains Beach all the way over to  
20 Tracks, which is right off the Kahe Power Plant, and  
21 so they worked these areas for some time. There was  
22 also a hotline posted for people to call in.

23                 Now, at the end of the day, when they  
24 would collect all of these bags, they would break  
25 open the bags and they'd separate out the medical

1 waste so that they could get an accounting for it,  
2 because the Department of Health wanted to know  
3 approximately how much waste had been discharged.  
4 Of course, it's kind of hard to determine how much  
5 had been discharged, but you can certainly get a  
6 good idea of how much was recovered, because you can  
7 count that. So that went on for about a week.

8 Now, one thing -- this started on Friday,  
9 Friday morning. The event was on Thursday. On  
10 Sunday, there was a report that went out that they  
11 were expecting flash floods again. So Waste  
12 Management, realizing that they still had quite a  
13 bit of debris at the base of the retention basin,  
14 pulled the crews over to collect that, because if  
15 that area flooded and then washed out again, you're  
16 going to be starting the process all over again. So  
17 they went back and started picking it up at the  
18 source, to mitigate that issue. And then after that  
19 -- and I guess the event never really occurred to  
20 the extent that the weather service was fearful of.  
21 They went back out on the beaches again and the  
22 hotline continued.

23 They had reports as far as Pokai Bay of a  
24 single syringe. And what would happen on that, when  
25 that report would come in, we would contact the

1 lifeguards and the lifeguards would go out, and they  
2 couldn't find anything on some of these.

3 And you know, sometimes, in some of these  
4 areas, it's not unusual, whether there's a flow, an  
5 overflow coming out of the landfill or not, to find  
6 medical waste, specifically syringes in storm water  
7 debris. And we actually find it quite often when  
8 we're looking in the storm drains, particularly down  
9 in the Kakaako area.

10 Q. And that wasn't as a result -- the Kakaako  
11 area obviously wasn't as a result of anything  
12 related to the landfill.

13 A. No, not in Kakaako area. Kakaako had its  
14 own issues around that time.

15 Q. And were there any efforts by the City to  
16 clean the beaches, not Waste Management but the  
17 City?

18 A. Well, as far as the City went, we were --  
19 you know, our water quality sampling guys, if they  
20 saw something, they'd collect it. But most of it  
21 was left up to the crews that Waste Management had  
22 brought in.

23 Q. Was there use of a scarifier? Do you know  
24 what that is?

25 A. Scarifier -- okay. Yes. Now that you

1 mention that -- the Parks and Recreation took -- a  
2 scarifier is what they use for picking up cigarette  
3 butts out of the sand, and they took it out on the  
4 City beaches and they did scarify to see if they  
5 could pick up any type of medical debris that was in  
6 the sand.

7 Q. Mr. Hospodar also criticized, I guess, the  
8 City's response to questions relating to  
9 decontamination of medical waste.

10 What is your knowledge of how the waste  
11 has to be, I guess, autoclaved or decontaminated  
12 before it enters the landfill?

13 A. Well, the Department of Health regulates  
14 how the medical waste must be treated before it can  
15 be discharged, and of course, the company that  
16 handles the medical waste and is in charge of taking  
17 care of it, they -- of course, they have to report  
18 how it's been done and show all the necessary  
19 documents that it has been adequately autoclaved,  
20 bagged, before it's taken to the landfill.

21 Now, when it goes to the landfill it's  
22 placed in its own location. And they place it in  
23 and then they cover it.

24 Q. So those documents are collected by what  
25 agency?

1           A.       The Department of Health. And then also  
2 Waste Management keeps copies out at the site.

3           Q.       So when the waste is taken to the  
4 landfill, would they have to -- I guess the  
5 transporter, would they have to show those documents  
6 to Waste Management before disposal?

7           A.       Yes, they have to present those documents.

8           Q.       And Mr. Kane also testified regarding  
9 concerns regarding cultural impacts of the gulch at  
10 the site.

11                    Are you aware of any historic or cultural  
12 concerns related to Waimanalo Gulch?

13           A.       Well, these are addressed during the EIS  
14 process and the two agencies that were consulted on  
15 this was the state historic preservation group, as  
16 well as OHA, and neither of those agencies objected  
17 to the expansion of the landfill.

18           Q.       I'm going to pass what I'm going to mark  
19 as Exhibit A -- I think I'm at A48.

20                    Do you recognize this document?

21           A.       Yes. I do believe I've seen this document  
22 before.

23           Q.       Can you describe it?

24           A.       This is the response from the state  
25 Department of Land and Natural Resources,

1 specifically the State Historic Preservation  
2 Division.

3 Q. What does this document reflect?

4 A. It indicates that there's no effect to  
5 historic properties.

6 Q. No effect to historic properties in what  
7 location?

8 A. At the Waimanalo Gulch.

9 Q. And this is in relation to the expansion?

10 A. Yes, it would be.

11 Q. I'm now going to show you what I'm going  
12 to mark as Exhibit A49.

13 Do you recognize this document?

14 A. Yes. I have seen this document before.

15 Q. What does this document contain? First of  
16 all, who is the author?

17 A. The author is Clyde Namu'o.

18 Q. Of what agency?

19 A. Of the Office of Hawaiian Affairs.

20 Q. What does this document contain?

21 A. This document outlines, first of all, what  
22 the City and County is seeking and basically OHA's  
23 position on this. And basically, they do not object  
24 to the project.

25 Q. They don't object specifically to what?



1 A. To the expansion of the landfill.

2 Q. And I think it's specifically in relation  
3 to this proceeding.

4 A. Yes.

5 Q. Regarding the landfill --

6 A. Yes. For 2011, yes.

7 Q. So the deletion of the July --

8 A. Of the July 31st date, yes.

9 Q. -- 31st, 2012 deadline for MSW?

10 A. Right.

11 MS. VIOLA: At this point, the City would  
12 like to enter into evidence Exhibits A48 and A49.

13 MR. CHIPCHASE: No objection.

14 CHAIRWOMAN PINGREE: That's fine. Thank  
15 you.

16 MR. SANDISON: No objection.

17 BY MS. VIOLA:

18 Q. Mr. Miller also testified that the City's  
19 evaluation of alternative disposal technologies is  
20 inconsistent with the current state of practice.

21 Would you agree with that  
22 characterization?

23 A. Well, I -- I'm not sure exactly which  
24 disposal he's talking about, but I can tell you what  
25 we have done. We have tried to find somebody who

1 could take care of residual that comes out of  
2 H-POWER. This is mostly dirt and fine pieces of  
3 glass and such. We also were trying to find someone  
4 who could take care of the ash that is generated by  
5 H-POWER, and then the other one that we were  
6 unsuccessful in finding somebody was to -- an  
7 alternative technology similar to a plasma  
8 gasification or a pyrolysis-type unit. So we did  
9 not get any responder on those three.

10 The only one we got a response on our four  
11 RFPs was for the composting of biosolids.

12 Q. Mr. Miller also criticizes -- I guess, no,  
13 he didn't criticize -- he opines that there is no  
14 need for a general purpose landfill if you utilize  
15 alternative disposal methods.

16 Do you agree with that statement?

17 A. I disagree.

18 Q. Why?

19 A. Again, you have to look at the entire  
20 spectrum of waste that goes -- that the City has to  
21 deal with on a daily basis. If it's just solely  
22 MSW, I would say he's probably correct. But it's  
23 not just solely MSW. There's a whole range of  
24 things.

25 You also have to keep in mind that outside

1 of your day-to-day household trash that we deal  
2 with, we also have things such as agricultural  
3 waste. And when I say agricultural waste, that may  
4 include things from the dairy farmers. It may  
5 include waste from pig farmers. It may also deal  
6 with carcasses from the zoo or from the various type  
7 of agricultural entities, also. So those type of  
8 items, you know, I couldn't agree with.

9 The other is, we're in the middle of the  
10 Pacific Ocean. We've already found that trying to  
11 transport our waste to somebody else doesn't work.  
12 We went that route. We tried very hard for a year  
13 before we ended up having to take care of it  
14 ourselves here locally. So it's not that simple of  
15 an issue.

16 Q. Let me expand on that. In terms of the  
17 shipping, what kind of problems did the City  
18 encounter in trying to ship waste to the mainland?

19 A. The first problem was the USDA, of course,  
20 wants to be very restrictive as to what can go.  
21 They want to make sure that we're not transporting  
22 some type of tropical menace to the mainland. And  
23 so they do a fairly thorough due diligence of what's  
24 coming over. And so they have to issue a compliance  
25 agreement.

1           Now, as part of that compliance agreement,  
2 of course, the contractor has to identify everything  
3 he's going to do and how he's going to take care of  
4 it. So he has to make sure that he has the proper  
5 chain of custody. The contractor came in and  
6 underbid the project, because the City Council said  
7 they would not fund anything over \$100 a ton.  
8 The other two bidders were at about 160, \$170 a ton.  
9 He came in at \$99 and, I think, 97 cents, or  
10 something. So right off, he had problems. He could  
11 not get all of the support contractors on board in  
12 order to satisfy the USDA.

13           There was also an issue -- probably the  
14 one that was the most devastating to the contractor  
15 was that he was trying to take it to either the  
16 Columbia Ridge Landfill or the Roosevelt Landfill.  
17 He was not really clear which one he was going to,  
18 although his preference was Roosevelt, but he found  
19 that there was -- since USDA found that there was no  
20 dock at Roosevelt, like he had represented in his  
21 application, then he had to change over to Columbia  
22 Ridge. But there were certain treaties with the  
23 Native Americans having to do with the use of the  
24 Columbia River, and this clearly violated those  
25 treaty agreements.

1           So in the end, he withdrew because he  
2           could not afford it, and he came back to us and he  
3           wanted a contract adjustment. He wanted to go up  
4           and either increase the tonnage or go by a lump sum  
5           amount, which we could not agree to, because then  
6           we'd have to put it back out for bid again.

7           And then, also, because the Yakima Nation  
8           took this to court, and I believe they told us the  
9           court upheld the position of the Yakima Nation, you  
10          know, we could not move forward on that.

11          So consequently, we had to enter into a  
12          settlement agreement with that particular vendor so  
13          that he would at least keep ownership of his 20,000  
14          tons of trash that was sitting out at Kalaeloa, and  
15          we allowed him to, at a reduced rate, to break that  
16          trash up and take it to H-POWER. So in the end, it  
17          did all end up at H-POWER and it was incinerated.

18          Q.       So the original intent of diverting that  
19          particular waste from the landfill was maintained?

20          A.       Yes, it was.

21          Q.       As of now -- as of July 31st, 2012, is  
22          there a shipping option available to the City?

23          A.       Not at this time.

24          Q.       If the City were interested in looking at  
25          shipping again, do you have an estimate on how long

1 it would be to be able to ship any waste to the  
2 mainland?

3 A. The process would have to start all over  
4 again.

5 Q. So the USDA would have to start their  
6 review again?

7 A. A new EA would have to be done, and the  
8 EA, keep in mind, was done by the U.S. government  
9 the last time. I'm not sure they would do it again.  
10 It would probably require not just an EA, but given  
11 the history of the past contractor, it would  
12 probably have to go to an EIS.

13 You would have a lot of -- if you're still  
14 look at going up the Columbia River, you'd still  
15 have the issues with the Yakima Nation, and also,  
16 the cost will significantly go up.

17 Q. So realistically speaking, there's no  
18 shipping option as of July 31st, 2012?

19 A. That's correct.

20 Q. What about -- Mr. Miller also testified  
21 that there may be -- that possibly the City could  
22 store the waste as of July 31st, 2012.

23 Is that an option, storing it at H-POWER?

24 A. Well, they don't have a lot of room to  
25 store it at H-POWER. The Department of Health is

1 rather restrictive as to how much they will allow  
2 you to store. And that is what got Hawaii Waste  
3 Systems into, I guess, regulatory issues with the  
4 Department of Health, in that they had far more  
5 stored out on site than the Department of Health  
6 would allow. And there's also a minimum [sic]  
7 amount of days that you're allowed to store.

8 So if you're talking about all MSW, right  
9 now all MSW consists of all sorts of stuff,  
10 including food waste, household food waste, and the  
11 longer you store it, the more likely you are to  
12 develop fly larva and then eventually flies. And  
13 again, that was one of the complaints that the  
14 surrounding community had with the HWS 20,000 tons  
15 on the dock, was the fly issue.

16 Q. So there's other environmental concerns,  
17 then, with storage?

18 A. Yes.

19 Q. Currently, the Department of Health does  
20 not permit -- or through the permit allow for  
21 H-POWER to store any large amount of solid waste?

22 A. No. They're only allowed to store what  
23 they can hold on the tipping floor, and typically,  
24 the tipping floor can hold up to three days of MSW.

25 Q. Mr. Miller also criticized the City's

1 attempt to reuse ash.

2 As far as you know, has -- first, did the  
3 City make an attempt to propose reuse of ash?

4 A. Yes. I covered that earlier, that we did  
5 have an RFP out for somebody who could step forward  
6 and find a use for what we call the bottom ash,  
7 which is the heavy ash, and also the lighter fly  
8 ash, and there were no bidders.

9 Q. As far as you know, though, would DOH  
10 approve any reuse of ash?

11 A. Well, we have had numerous conversations  
12 with DOH on this. We have asked if we could use the  
13 ash, the bottom ash in asphalt, make a product  
14 that's called ashphalt.

15 And actually the grounds within H-POWER,  
16 the original pavement was ashphalt. It was used as  
17 a pilot. It was a pretty good product.

18 However, DOH, because they have very  
19 strict controls on what they're going to allow in a  
20 wearing course of asphalt -- the wearing course is  
21 that really fine surface layer. They had concerns  
22 that because we get things such as flashlight  
23 batteries and cell phone batteries and all these  
24 other -- and you end up with certain heavy metals,  
25 and they would not permit the use of it.



1           So we also asked -- went back and said,  
2 Well, how about if we use it as ATB, which is the  
3 asphalted-treated base course, and that's the  
4 material that goes underneath the asphalt. DOH said  
5 no, because eventually if that gets torn up, it can  
6 become airborne and we cannot approve that.

7           And it was the same issue with the fly  
8 ash. You can use fly ash in concrete as an  
9 additive. However, if you go to demolish the  
10 asphalt and it ends up as a dust in the air, DOH had  
11 concerns about any type of heavy metals that may be  
12 in that fly ash.

13           Q.       So the bottom line is that the Department  
14 of Health did not approve the reuse of ash in the  
15 ashphalt product?

16           A.       Well, they didn't approve it for anything.  
17           And that's not unusual. Across the nation  
18 it's that way. So you'll probably find very, very  
19 few places are able to reuse their ash, whether it  
20 be bottom ash or fly ash. And you know, I guess if  
21 you want to talk about the current state of  
22 practice, the current state of practice is pretty  
23 much defined by the local regulatory agency, what  
24 you're allowed to do and not allowed to do.

25           Q.       And DOH does not --

1 A. They do not allow it.

2 Q. Despite ENV's efforts to propose reuse  
3 options?

4 A. Yes.

5 Q. Mr. Miller also repeats in numerous places  
6 in his testimony, page 23, page 98 to 99, page 102,  
7 page 137, page 140, that there's no need for food  
8 waste and green waste to go to the landfill.

9 Does green waste and food waste go to the  
10 landfill currently?

11 A. All of the green waste that you put in  
12 your green bin goes to be composted, and so that  
13 material is not allowed -- we don't allow large,  
14 large quantities. Sometimes you get small bags in,  
15 but as far as a large quantity -- and by large  
16 quantity, I mean anything that can fit into your  
17 green bin, which is about a 94-gallon bin -- we  
18 wouldn't allow that in. And so we have a very good  
19 capture rate on the green waste. That simply would  
20 not be allowed.

21 Food waste, most people -- and I'm sure  
22 everybody here on the commission does the same.  
23 They take their plastic bags and they dump their  
24 food waste in, tie it up and then put it into the  
25 trash, and that ends up out at H-POWER. So when it

1 goes to H-POWER, it becomes what we call  
2 refuse-derived fuel, and that refuse-derived fuel  
3 becomes fuel for electricity. So your food waste  
4 that you actually put into your trash can is now  
5 being converted into electricity.

6 Now, as far as the restaurants go, such as  
7 Waikiki, most of those have contracts with  
8 recyclers, local recyclers. So you'll see trucks  
9 driving up and down the street -- one of the more  
10 notable ones is Eco -- Eco-Feed, I believe, is the  
11 company's name. They have these green bins in the  
12 back and they're taking these out to the local  
13 recyclers, and some of the larger ones are out on  
14 the Waianae side, and so that material is -- again,  
15 that food waste is recycled by those companies.

16 Also, in our HER contract, our next area  
17 that we do want to try and target is the home side  
18 food waste. So that is the one that we're going to  
19 try and look at now, and it's a little bit more  
20 difficult to deal with, because you don't really --  
21 people on the whole have two choices for food waste.  
22 They either put it in their plastic bag, that I  
23 think the City Council will soon ban. But the other  
24 is they shove it down the garbage disposal, and  
25 actually, I would rather that it go in the plastic

1 bag than it go in the garbage disposal, because that  
2 creates issues on the wastewater treatment side.

3 Q. So the waste that goes down the garbage  
4 disposal ends up at the wastewater treatment plant?

5 A. It ends up at the wastewater treatment  
6 plant, as a biosolid.

7 Q. But the majority of food waste, in  
8 general, does not go to the landfill?

9 A. No, it does not. The majority of it goes  
10 up to H-POWER.

11 Q. And that's from homeowners and commercial  
12 businesses?

13 A. Like I said, the commercial people who  
14 have recycling contracts, that's handled by a  
15 recycler. But the ones who have a smaller amount of  
16 food waste that's put it into a dumpster and a  
17 hauler comes and takes it away, that would end up at  
18 H-POWER.

19 Q. That doesn't go to the landfill?

20 A. No.

21 CHAIRWOMAN PINGREE: Dana, I'd like to  
22 take a break. I can see Sue -- she needs a break.

23 MS. VIOLA: Fine.

24 CHAIRWOMAN PINGREE: So if we could kindly  
25 take ten minutes.

1 (Break taken.)

2 CHAIRWOMAN PINGREE: We're back on the  
3 record. Thank you.

4 BY MS. VIOLA:

5 Q. Mr. Steinberger, there was also testimony  
6 from Mr. Miller that -- I think it's page 99 in his  
7 testimony --

8 CHAIRWOMAN PINGREE: I'm sorry, Dana. I  
9 can't hear you.

10 MS. VIOLA: Page 99 of his testimony.

11 CHAIRWOMAN PINGREE: Of Mister --

12 BY MS. VIOLA:

13 Q. In the transcript of his testimony, Mr.  
14 Miller states: I do not believe that Honolulu can  
15 do without a landfill. And then he also states that  
16 he doesn't think there's a consequence to closing  
17 the landfill on July 31st, 2012.

18 Do you consider those two statements to be  
19 contradictory?

20 A. I would say yes.

21 Q. Why?

22 A. Well, because one is, Honolulu cannot do  
23 without a landfill, but yet after July 31st, 2012,  
24 if you close the landfill, then you don't have a  
25 landfill. So I would say, yes, it's definitely a

1 contradictory statement.

2 Q. So as of July 31st, 2012, there would  
3 still be -- it's not the -- it's the landfill for  
4 MSW.

5 A. For MSW.

6 Q. Your testimony is that there will still be  
7 a need for MSW disposal as of July 31st, 2012?

8 A. Yes, there will be.

9 Q. Even after July 31st, 2012, say when the  
10 third boiler is up and running, will there still be  
11 a need for a landfill for MSW after that?

12 A. Whenever the H-POWER facility goes down  
13 for maintenance, at that time the waste is then  
14 diverted to a permitted location, and that permitted  
15 location is the landfill.

16 Q. And is there specific types of MSW that  
17 will still need to be land-filled after the third  
18 boiler comes up and running?

19 A. Well, there's certainly the special waste  
20 that is still going to -- that you have to deal  
21 with, and I indicated earlier that the biosolids  
22 from Waianae have to be addressed. Actually,  
23 biosolids are defined now by EPA as MSW, so that  
24 would still have to be dealt with.

25 Q. What about medical sharps?

1           A.       Well, that comes under the special waste.  
2       The medical -- you know, the medical waste and the  
3       sharps still have to be discarded up in the -- or  
4       disposed of in the landfill. They don't go to  
5       H-POWER. Again, outside of the plastic box that  
6       they are placed in, the sharps themselves are  
7       generally stainless steel and the temperature is  
8       just not high enough at H-POWER to melt those, so  
9       they come out as -- still as a sharp and it shows up  
10      in the ash.

11          Q.       Are there any other wastes, MSW wastes  
12      that you're aware of that would have to be  
13      land-filled after H-POWER coming -- the third boiler  
14      comes up?

15          A.       Other MSW waste? Are you talking about  
16      special waste or --

17          Q.       Yes, including special waste.

18          A.       Special waste. Okay. Do you want me to  
19      go through the whole list of special waste? I can  
20      go through -- I think you all have the Integrated  
21      Solid Waste Management Plan.

22          Q.       Okay.

23          A.       And the special wastes are such products  
24      as asbestos.

25                   MR. CHIPCHASE: I'm sorry. Which page and

1 which exhibit number?

2 A. I'm sorry?

3 BY MS. VIOLA:

4 Q. What are you referring to?

5 A. The Integrated Solid Waste Management  
6 Plan.

7 Q. Can you tell me which page you're --

8 A. I'm in the table of contents, triple I.

9 MR. CHIPCHASE: Which exhibit is that?

10 MS. VIOLA: I can enter it as an exhibit.

11 MR. CHIPCHASE: Do you have copies?

12 MS. VIOLA: No.

13 MR. CHIPCHASE: I mean, I don't want him  
14 to read it from a document that I can't see.

15 BY MS. VIOLA:

16 Q. Based on the Integrated Solid Waste  
17 Management Plan, is this your understanding of the  
18 special wastes that have to go into the landfill  
19 even after the third boiler is up and running?

20 A. Yes, most of it is. Some of it can be  
21 diverted, but most of it --

22 Q. Without referring to that Integrated Solid  
23 Waste Management Plan, Mr. Steinberger, what are the  
24 wastes that you're aware of that have to be  
25 land-filled even after the third boiler comes up?



1           A.       Asbestos, used motor oil, the lead acid  
2 batteries, combustion ash, unless we can find an  
3 alternative means to deal with it, the sewage sludge  
4 up until we have the HER facility on board and as  
5 long as the HER facility is functional and does not  
6 go down for either maintenance or perhaps some other  
7 issue, the agricultural waste, the medical waste, of  
8 course, scrap tires -- and again, we are currently  
9 trying to see if we can work out a way that we can  
10 deal with the scrap tires at the H-POWER facility,  
11 but that may be a year or two down the road before  
12 we get that resolved -- and also, any of the ASR  
13 that comes up. It's not really ASR, but it's  
14 shredder waste off of white goods. As you know, the  
15 material that's -- such as a refrigerator and a  
16 washing machine and such, there are plastics on the  
17 inside, so that material that's not stripped off  
18 ends up as a shredder waste.

19           Q.       What about sandblast grit?

20           A.       Sandblast grit also needs to continue to  
21 go up to the landfill.

22           Q.       So all of these wastes that you just  
23 listed, despite the expansion of H-POWER through the  
24 building of the third boiler, these wastes would  
25 still have to go to the landfill?

1           A.       Those would still be diverted to the  
2 landfill, that's correct.

3           Q.       Because they cannot be burned at H-POWER?

4           A.       Right. They have no thermal value to  
5 them.

6           Q.       Let me go back to the question relating to  
7 how long it takes to develop a new site. This is  
8 from selecting a site to having a landfill up and  
9 running. Mr. Miller testified it would take three  
10 years.

11                   Do you agree with his statement?

12           A.       I do not degree.

13           Q.       Why?

14           A.       Because we know that the permitting  
15 process alone historically has taken at least three  
16 years. So from the time that you go through the  
17 site identification to site selection to property  
18 condemnation to the EIS, and then given everything  
19 is okay at that point, going out with your RFPs or  
20 your bids and then getting the project constructed  
21 and then approved by DOH with the DOH solid waste  
22 permits, I think Mr. Doyle indicated at best it  
23 would be seven years.

24           Q.       Do you agree with that estimate?

25           A.       I would say at best seven years.

1 Q. When you say at best, do you mean at least  
2 seven years?

3 A. That's what I mean.

4 Q. Likely longer?

5 A. Given how long it has taken us to go  
6 through this process, and this is a piece of  
7 property that we own, a piece of property that the  
8 infrastructure is in place, a piece of property  
9 that's already designated as a landfill, I would say  
10 it would probably be plus. You know, landfills are  
11 kind of like prisons; everybody recognizes the need  
12 for them, but nobody wants them.

13 Q. I want to go back to this issue that Mr.  
14 Miller said that there's no reason why putrescible  
15 waste should be going to the landfill.

16 Do you agree with his statement?

17 A. If he's referring to putrescible waste as  
18 food waste --

19 Q. Uh-huh.

20 A. Basically, most of your household waste  
21 that is food waste is now going to H-POWER. So you  
22 know, it's only during those times when H-POWER was  
23 down or when H-POWER is at daily capacity would it  
24 be diverted to the landfill. Now, again, as I  
25 indicated earlier, we are looking at taking that

1 next step with dealing with the household food waste  
2 under the HER contract.

3 Q. And another putrescible waste would be  
4 green waste. Again, you already stated that --

5 A. It does not go to the landfill now.

6 Q. So the only remaining waste that would, I  
7 guess, fit into that category of putrescible waste  
8 in Mr. Miller's, I guess, characterization would be  
9 biosolids. Is that correct?

10 A. That would be correct.

11 Q. And currently, the department is seeking  
12 alternatives for diversion of biosolids?

13 A. That is correct.

14 Q. When you talk about when H-POWER goes  
15 down, is there another reason in your mind,  
16 essentially in that context, why there is a need for  
17 the landfill?

18 A. Well, generally, the requirement under the  
19 permit indicates that if you cannot process the  
20 waste and it's going to exceed the amount of time  
21 that DOH will allow you to store the waste, that it  
22 has to be diverted to another permitted site, and  
23 that site currently is the landfill.

24 Q. Is that the only option, other option?

25 A. That's the only option we have.

1 Q. So in terms of a backup for H-POWER, the  
2 landfill is the only option?

3 A. That's the only option.

4 Q. That's a permitting requirement for  
5 H-POWER?

6 A. That is a permitting requirement.

7 Q. In relation to emergency situations, is --  
8 I guess what would be your opinion as to the need  
9 for a landfill under emergency situations?

10 A. Can you define emergency?

11 Q. Say something like if Oahu is hit by any  
12 debris coming from the tsunami in Japan.

13 A. Okay. You're talking disaster debris?

14 Q. Yes.

15 A. Okay. The current plan for dealing with  
16 the disaster debris -- and I think it's really  
17 certainly come to the top of everybody's mind these  
18 days since the Fukushima event -- is that you  
19 identify large open areas of land and you quickly  
20 move your debris to those areas, and you'd like to  
21 separate it out into green waste, burnable waste and  
22 then just waste that is, for lack of a better term,  
23 just waste.

24 The green waste you would like to be able  
25 to take over to the recyclers and the burnable waste

1 you'd like to be able to take over to H-POWER, and  
2 then that which is left that you have no use -- that  
3 has no value to it as far as recycling or for  
4 combustion would then go to the landfill.

5 Q. If we don't have a landfill to receive  
6 that category of waste that you've referred to, what  
7 would happen to that waste?

8 A. We would most likely have to get some type  
9 of a special permit or permission from the state  
10 Department of Health and bury it on site. That's  
11 the only thing I can think of at this time.

12 Q. So bury it --

13 A. Bury it on site, on the storage site.

14 And it's not the most ideal situation,  
15 because at least with the sanitary landfill you have  
16 a liner, and that liner is going to capture any  
17 moisture. But if you create a public health issue  
18 and you have to do something quickly, covering it  
19 may be your only option.

20 Q. So in that context, land-filling it would  
21 be safer for the public and the environment?

22 A. Yes.

23 Now, there is one other variable out there  
24 and that's the PVT Landfill. So certainly we're  
25 looking at the -- when I say bury it on site, if the

1 PVT landfill is also not available.

2 Q. The PVT Landfill right now, is that  
3 permitted to take MSW?

4 A. No, it's not, but in the event of an  
5 emergency, Department of Health may allow a short-  
6 term disposal.

7 Now, during the January event, ironically  
8 enough, we asked Department of Health if we could  
9 start taking the bulky waste up to PVT, and they  
10 said, Sure, you can take it up there and you can  
11 stockpile it, but when your landfill is open, you  
12 have to remove it from where it's stockpiled and  
13 take it back to Waimanalo Gulch. So the PVT  
14 operators chose not to do that, because, one, it  
15 puts them at risk of permit violations, because now  
16 you just have stockpiled waste that's not being  
17 covered on a daily basis, and the other was it's an  
18 operational issue for them. You stockpile it  
19 somewhere and then you have to turn around and put  
20 it back into the trucks and haul it off at a later  
21 date.

22 Q. So PVT as a landfill that cannot take MSW,  
23 it doesn't have, I guess, the precautions like the  
24 liners that would be required for MSW landfills?

25 A. You would probably best have to ask PVT

1 operators what the restriction on that is and why  
2 they have the restriction for MSW.

3 Q. As far as you understand, are they subject  
4 to the same landfill requirements as an MSW  
5 landfill?

6 A. I don't think they have the same type of  
7 restrictions because they're dealing with a  
8 different type of waste. But again, that would be  
9 best answered by Department of Health or by PVT.

10 Q. Just one last series of questions. Mr.  
11 Steinberger, are you familiar with Parametrix?

12 A. Parametrix is an architectural engineering  
13 firm. They back in the early '90s bought out a  
14 company called Kennedy/Jenks that was here locally  
15 in Hawaii. Kennedy/Jenks did a lot of military work  
16 and the military work was trailing off, so they  
17 chose to stop operations in Hawaii, and so it was  
18 sold to Parametrix. The deal was there'd be  
19 non-compete for ten years between Kennedy/Jenks and  
20 Parametrix.

21 Kennedy/Jenks then stayed in California  
22 and Parametrix survived here for about three or four  
23 years, and shortly after, they closed their offices.

24 Q. They were only operating in Hawaii -- or  
25 had an office in Hawaii for about three to four



1 years?

2 A. About three to four years.

3 Q. What period of time was that?

4 A. That was in the early '90s.

5 Q. Do you know why they left?

6 A. Well, according to their office manager at  
7 the time, they could not get any work and they were  
8 depending heavily on government work, and  
9 specifically on county work.

10 Q. Were they getting county work?

11 A. No, they were not.

12 Q. What is your understanding of why they  
13 were not getting county work?

14 A. Well, the -- my understanding is that the  
15 workers or the engineers within the counties did not  
16 care for the quality of work that they were getting.

17 Q. Would you hire Parametrix?

18 A. Well, given that Parametrix does not  
19 submit a statement of qualifications, I could not  
20 hire them.

21 Q. What is a statement of qualifications?

22 A. Every year, the City, when they get ready  
23 to engage in consultant services -- these are the  
24 non-bid type contracts -- we ask for everybody who's  
25 interested in work to submit statement of

1 qualifications, showing that their firm is qualified  
2 to do the work that they want to apply for. If you  
3 do not submit that statement of qualifications, you  
4 cannot be considered for work.

5 Q. And if they were to submit statement of  
6 qualifications, would you have any reservations  
7 considering Parametrix?

8 A. Well, again, I'm not the one who makes the  
9 decision as to who the consultants are selected.  
10 But I believe the staff would probably have some  
11 reservations about it, and part of that is going to  
12 go back to the issues with the Central Maui  
13 Landfill.

14 Q. Could you be more specific? What issues  
15 regarding the Central Maui Landfill?

16 A. Well, there was -- some time ago, back in  
17 the '90s, Maui chose to expand its landfill, and the  
18 way Maui works is they share the site with Ameron  
19 quarry. As one area is quarried out, that's  
20 expanded into a new landfill cell.

21 So they started the development on that  
22 and they were utilizing a local consultant, Masa  
23 Fujioka and Associates. For whatever reason, things  
24 kind of stalled for a while, so the design didn't  
25 really go anywhere and the project didn't go

1 anywhere. Then they resurrected it again.

2 Q. And the project --

3 A. They resurrected it.

4 Q. What was the project?

5 A. This was the expansion of the central  
6 landfill -- Central Maui Landfill.

7 So they resurrected it. They hired  
8 Parametrix now to come in and basically redesign.  
9 And during the redesign, Parametrix took the 26-acre  
10 landfill site, reduced it down to a ten-acre  
11 landfill site and identified the need for this very,  
12 very large leachate lagoon. Leachate lagoons are  
13 fairly common on the mainland. I think Dr. --

14 Q. Sharma?

15 A. -- Sharma testified to that earlier. And  
16 the leachate lagoons are intended to capture the  
17 leachate, and you have two options. If it's on the  
18 mainland, like in the arid areas of the mainland it  
19 pretty much evaporates, the liquid evaporates, they  
20 can scoop the debris up off the bottom of the lagoon  
21 and then take it back and place it in the landfill,  
22 mix it with the daily cover.

23 And some areas, such as -- there are some  
24 areas in California that actually take the leachate  
25 out and they recirculate it back up to the landfill

1 where they use it as dust control for the working  
2 face and also for irrigation for those closed areas  
3 that are being grassed.

4 So what they did was they built this very  
5 large lagoon, and the reason that they made this  
6 large lagoon is because they determined that the  
7 lagoon was needed in the event that in the first  
8 month or so of operations, of new operations, if  
9 there was a 25-year, 24-hour storm, you had to be  
10 able to capture all of that water into that basin,  
11 into that lagoon.

12 So then, of course, on the other side,  
13 going from original intent of a 26-acre cell down to  
14 a ten-acre cell, they were looking to recapture air  
15 space. So instead of having a 36-inch thick control  
16 surface -- this is the dirt that goes over your  
17 liner that protects your liner -- they reduced it  
18 down to 18 inches, and Department of Health did not  
19 like that. Specifically, Gary Siu, who was at  
20 Department of Health, he would not accept it. He  
21 said it did not meet the design standards.

22 The other issue was the liner that was in  
23 the lagoon itself, Gary was concerned about the size  
24 of rocks that had been placed and was concerned that  
25 there may be a compromise of the liner and the

1 leachate within.

2 So this thing drug on for a long time. I  
3 think they actually built it before they had the  
4 permit and then it sat there constructed, unused,  
5 from about '98 to about 2004, 2005 time frame.

6 Q. And why was it unused?

7 A. Because they couldn't get a permit from  
8 the Department of Health.

9 Q. Why didn't the Department of Health issue  
10 a permit?

11 A. Because they said it did not meet their  
12 minimum standards.

13 Q. That would be standards of protecting  
14 human health and the environment?

15 A. If it's Department of Health, that's  
16 probably their position.

17 Q. I'm going to show you what I'm marking as  
18 Exhibit A50. Mr. Steinberger, do you recognize the  
19 document that I've marked as A50, Exhibit A50?

20 A. I have recently seen this document.

21 Q. What is it?

22 A. This is a -- appears to be a newsletter  
23 that was released by -- I guess the organization is  
24 Environment Hawaii.

25 Q. What is the newsletter in regards to?

1           A.       It's in regards to the expansion of the  
2 Central Maui Landfill Phase IV.

3           Q.       Is this the Central Maui Landfill project  
4 that you were just testifying to?

5           A.       Yes.

6           Q.       What were the concerns expressed in this  
7 article?

8           A.       The concerns were expressed in the article  
9 that the design -- the redesign of the landfill was  
10 substandard.

11          Q.       I'm sorry? Substandard?

12          A.       Substandard.

13          Q.       Specifically substandard in what regard?

14          A.       Well, in regard to, first off, the  
15 leachate handling system, and regards to the control  
16 phase or the control level of the landfill.

17          Q.       When you say the leachate handling system,  
18 was there any -- are you saying that the leachate  
19 handling system was not appropriate for -- as  
20 designed, was not appropriate for the cell  
21 development?

22          A.       Well, I think the decision-making process  
23 that went into the development of the lagoon, you  
24 know, could have been improved. Obviously, when  
25 they figured that they're going to have over a

1 thousand gallons a minute of leachate that they had  
2 to deal with, which created the need for this very  
3 large lagoon, on a cost effective basis, it just did  
4 not make sense.

5           Keep in mind that up at Waimanalo Gulch,  
6 which is considerably larger than this, we're  
7 dealing with, I guess, about -- oh, I guess we haul  
8 about 35,000 gallons about every two or three days  
9 off to the treatment plant, which is considerably  
10 less than what was being calculated by this.

11           Q.       According to this article, Parametrix  
12 designed the lagoon to address 1,033 gallons per  
13 minute of leachate, and -- to justify that 10,000-  
14 gallon holding tank, the leachate pond.

15                   Was this, I guess, an appropriate  
16 calculation?

17           A.       Well, based off of the logic that was used  
18 -- and the logic, again, was that they were  
19 considering that it was possible to have a 25-year,  
20 24-hour storm, and being that Department of Health  
21 identifies water that flows over the top of the cell  
22 as leachate or any water -- excuse me -- any water  
23 that ponds on top of a cell as leachate, you know,  
24 it seemed to be rather over-designed as far as that  
25 component went.

1 Q. On the second page of this article, the  
2 second to the last paragraph, it states that an  
3 individual named A-M-e-h-r -- it says A-Mehr ran --  
4 according to a model A-Mehr ran to determine the  
5 potential leachate from a 24-hour, 25-year storm,  
6 Phase IV could generate 17 gallons of leachate per  
7 minute. That's far below Parametrix's figure of  
8 1,033 gallons per minute, the estimate that it used  
9 to justify substituting the 10,000-gallon holding  
10 tank proposed in the MFA -- that would be Masa  
11 Fujioka and Associates -- design with a  
12 multi-million dollar leachate lagoon system.

13 So I guess the criticism -- according to  
14 the Department of Health, was this necessary?

15 A. No, it was not.

16 Q. And according to the Department of Health,  
17 as you understand it, and I guess as this article  
18 reflects -- was the operations layer something that  
19 was a concern to them?

20 A. It was a concern. Because again, the  
21 thicker your operations layer, then the less stress  
22 that you put on the liner. You've got to remember  
23 trucks are driving over the top of this, you know,  
24 the liner and this cover that's over it, so the  
25 thicker, the more the weight's distributed.



1           Also, you know, that additional 18 inches  
2 of soil also reduces your percolation rate that gets  
3 down into the leachate system.

4           Q.       Specifically in relation to the operations  
5 there, again on page two -- this is in the middle of  
6 page two, with the preface Operations Layer. It  
7 says: When a lined landfill is built, before it's  
8 put in use, a thick layer of soil must be laid down  
9 to prevent the liner from being damaged by the trash  
10 or the trucks hauling it in. The industry standard  
11 for this layer, called the operations layer, is 36  
12 inches. When Parametrix was redesigning the  
13 landfill, it sought to increase the amount of usable  
14 volume in the landfill by reducing the operations  
15 layer to 18 inches.

16           So according to this article and according  
17 to, I guess, DOH, Parametrix decreased this industry  
18 standard and sought to impose only an 18-inch thick  
19 layer?

20           A.       That's correct.

21           Q.       So would you say that this article  
22 accurately reflects your recollection of what  
23 happened with the Central Maui Landfill?

24           A.       That accurately reflects what I've heard  
25 from Maui.

1 MS. VIOLA: At this point, the City would  
2 move Exhibit A50 into evidence.

3 MR. CHIPCHASE: No objection.

4 MR. SANDISON: No objection.

5 CHAIRWOMAN PINGREE: Thank you.

6 BY MS. VIOLA:

7 Q. Mr. Steinberger, are you aware that Mr.  
8 Miller testified that he worked on the new cell  
9 development at the County of Maui -- Central Maui  
10 Landfill?

11 A. I believe that was in his resume, yes.

12 Q. So there's no reason for you to doubt that  
13 he actually did work on this project?

14 A. No, there's no reason for me to doubt  
15 that.

16 MS. VIOLA: No further questions.

17 CHAIRWOMAN PINGREE: Thank you.

18 Schnitzer?

19 MR. SANDISON: No questions.

20

21 E X A M I N A T I O N

22 BY MR. CHIPCHASE:

23 Q. Good afternoon, Mr. Steinberger.

24 A. Good afternoon, Mr. Chipchase.

25 Q. You remember me, of course, from however

1 many months ago it's been now. Right?

2 A. Yes.

3 Q. It's nice to see you again. For the most  
4 part, a lot of what I heard is the same kind of  
5 stuff you and I talked about the last time. Right?

6 A. True.

7 Q. The only new thing I remember was this  
8 article on Parametrix.

9 Did you know about the Maui landfill when  
10 we spoke the last time?

11 A. No, not when we spoke the last time.

12 There's a new Director of Environmental  
13 Management over in Maui and he came over recently to  
14 see the Waimanalo Gulch landfill, as well as our  
15 waste-to-energy facility, and we had some  
16 discussions about the Central Maui Landfill and he  
17 was explaining exactly, you know, how they operated  
18 and this relationship they had with -- I believe  
19 it's Ameron.

20 Q. It was a company; Ameron, you said?

21 A. Ameron, I believe, owns the quarry.

22 Q. I see. I'm sorry. Who was it you said  
23 you spoke with?

24 A. His name is Kyle Ginoza. He's the  
25 director.

1 Q. Quickly toddling back to some of the other  
2 things we talked about -- I promise not to take up  
3 as much of your day as I did the last time -- one of  
4 the things you talked about today was the impact on  
5 archaeology, or on historical features, more  
6 specifically. I believe you said that this time  
7 around OHA had no objections to the expansion of the  
8 landfill.

9 A. Basically, I think that's how you could  
10 summarize what their response was.

11 Q. Okay. Well, you're talking about Exhibit  
12 A49; right?

13 A. Yes.

14 Q. That's the August 16, 2011 letter from the  
15 Office of Hawaiian Affairs?

16 A. Yes.

17 Q. I read it, admittedly quickly. I didn't  
18 see anywhere it said no objection to the landfill.  
19 Could you point out that --

20 A. No. That -- I think what they said, they  
21 had no objection to amending that July 31st, 2012  
22 date.

23 Q. I actually didn't see that either. I  
24 don't know. I read it very quickly. If you could  
25 point that out to me.

1           A.       Yeah. I will -- let me -- actually, this  
2 came to the Department of Planning and Permitting,  
3 so when it came across my desk, it was very quick  
4 and then I referred it to the correct division.

5           Q.       Sure.

6           A.       In the first paragraph it indicates the  
7 requested amendment will delete the existing July  
8 31st, 2012 deadline.

9           Q.       Right.

10          A.       Then they continue to state some of  
11 opinions and facts, and then when you go to page  
12 two, it says: While OHA recognizes the spectrum of  
13 concerns which have been expressed by the Leeward  
14 Oahu community regarding the continued disposal of  
15 waste at Waimanalo Gulch Sanitary Landfill, we also  
16 recognize that the closure of Waimanalo Gulch  
17 Sanitary Landfill to waste disposal would affect the  
18 entire island of Oahu because the WGSL is the only  
19 landfill disposal option available to the DES at  
20 this time.

21          Q.       Right, which is what you've testified,  
22 there's no other option. Right?

23          A.       Yes.

24          Q.       You need to expand --

25          A.       And they recognize that.

1 Q. They recognize that. But nowhere does it  
2 say they don't object to it.

3 A. There's nowhere where they say that they  
4 do object to it.

5 Q. I understand. I'm just trying to pick up  
6 on what you testified. You testified that they  
7 stated they had no objection to it. We looked for  
8 it. We couldn't find that statement; right?

9 A. Right. However, I believe under the  
10 paragraph I read certainly indicates that they do  
11 not object.

12 Q. So if we read some of the other paragraphs  
13 in here -- we look at the top, say, of page two, we  
14 see longstanding concerns regarding the continued  
15 use of the WGS� have been consistently expressed by  
16 certain businesses and the Leeward Oahu community,  
17 which includes a large Native Hawaiian population.

18 Do you see that?

19 A. Yes, I do.

20 Q. And if we then go down to the bottom, OHA  
21 applauds the commitment of committee members and we  
22 hope that the DES will continue to support their  
23 efforts to identify an alternative landfill site on  
24 the island of Oahu. The issues and concerns  
25 relative to the continued disposal of waste at the

1 WGSJ will affect our community for generations to  
2 come and we will continue to monitor the amended  
3 permit should it move forward from the DPP to the  
4 Planning Commission and the LUC for consideration.

5 Do you see that?

6 A. Yes, I do.

7 Q. So they have concerns and they're  
8 continuing to monitor it; right?

9 A. Yes. And further they say: We have no  
10 additional comments at this time.

11 Q. No additional comments. That's right.  
12 Then if we look at the other exhibit you brought,  
13 A48, and that, Mr. Steinberger, is the April 2, 2009  
14 letter from the State of Hawaii Department of Land  
15 and Natural Resources.

16 Do you see that?

17 A. Yes, I do.

18 Q. And this one, all SHPD determined was that  
19 because of the mitigation, the moving of the stones,  
20 there would be no effect on historic property;  
21 right?

22 A. That's correct.

23 Q. And the stones are to be moved back when  
24 the Waimanalo Gulch closes; right?

25 A. Correct.

1 Q. So it's that mitigative alternative that  
2 results in no effect; right?

3 A. Correct.

4 Q. I mean, you're not a Native Hawaiian  
5 archaeologist; right?

6 A. No, I'm not.

7 Q. And you're not a Native Hawaiian  
8 practitioner, are you?

9 A. No, I'm not.

10 Q. So you have no idea whether it's important  
11 to Native Hawaiian practitioners that those stones  
12 be moved back as soon as possible, do you?

13 A. No. I rely on the expertise of the City.

14 Q. So if we pick those documents apart, it  
15 got me wondering other than these two documents and  
16 Exhibit A50, did you bring any other exhibits,  
17 documents that we can look at to support any of the  
18 other testimony you gave today?

19 A. I believe my testimony today was mostly in  
20 rebuttal of what Dr. Miller and some other  
21 individuals had stated.

22 Q. I just want to be clear. You don't have  
23 other documents?

24 A. Not with me, no.

25 Q. Just quickly on a couple of these subjects



1 -- we talked about the concurrent construction of  
2 the diversion channel and the cell and then the  
3 filling of the cell while the construction of the  
4 diversion channel was under way at Waimanalo.

5 A. Yes.

6 Q. I think you explained that, you know,  
7 permitting and processing delays forced the City or  
8 Waste Management into a situation where there was no  
9 other available space for the waste and so it had to  
10 go into the cell even though the diversion channel  
11 was not in place.

12 A. Yes. I believe that Department of Health  
13 recognized that they were coming to the end of the  
14 permitted air space at the gulch, and therefore,  
15 they went ahead and issued the permit.

16 Q. You talked about a couple of the parts of  
17 the process that resulted in that delay, and one was  
18 a challenge to the EIS.

19 A. Yes.

20 Q. Was it a surprise to you that a project of  
21 this magnitude would draw challenges to the EIS?

22 A. Well, given the emotional nature of the  
23 project, it was not a large surprise, no.

24 Q. And another part of it was that you needed  
25 to get approval from the state Land Use Commission?

1           A.       That is correct.

2           Q.       So, I mean, you know this is ag land;  
3 right?

4           A.       Yes. But it is, again, designated for the  
5 use.

6           Q.       I understand. But any time you use ag  
7 land for anything other than the use stated in  
8 statute, you need a Special Use Permit?

9           A.       Yes. Similar to Ko Olina when they  
10 developed, because it was also ag land.

11          Q.       Good example. So you knew you were going  
12 to have to go through that process; right?

13          A.       Yes. That's part of the permitting  
14 process.

15          Q.       So I guess what I'm trying to understand  
16 is if you knew what the permitting process was and  
17 you knew that, given the emotional nature of the  
18 project, you could see a challenge to the EIS, then  
19 why were we put in a situation where we had to  
20 concurrently construct the diversion channel and  
21 fill waste that's supposed to be protected by that  
22 diversion channel?

23          A.       I think I covered that, as well. You  
24 know, it's kind of like why would you indicate that  
25 a landfill can be from start to finish three years

1 when you know it can't be? You know, it's the same  
2 situation. We know that it takes time. I mean, we  
3 started this process some time ago.

4 Q. I guess what I'm -- I'm sorry. I don't  
5 mean to cut you off. Go ahead.

6 A. It's just that this process has taken a  
7 very long time. Even this process now -- I mean,  
8 how many times have we been here before the  
9 commission just for this issue?

10 Q. This is day seven.

11 A. This is going on, yes. But day seven is  
12 separated by several weeks. Go ahead, please.

13 Q. I guess what I'm just trying to understand  
14 is you knew you needed these permits. You knew  
15 delays were likely. Why didn't you start the  
16 process earlier, so that we didn't run into a  
17 situation where you ran out of air space?

18 A. I believe if you look at the history, the  
19 process was started earlier.

20 Q. But plainly, not early enough.

21 A. Well, I guess --

22 Q. You were running out of air space. Only  
23 one of us can talk at a time. Go ahead.

24 A. The issue is do we know what early enough  
25 is. As I indicated when Ms. Viola was asking

1 questions -- she said: Is that seven years? And I  
2 had indicated seven plus. Seven years is what I  
3 would call, you know, the minimum amount of time.  
4 Seven plus covers that extra time.

5           And it would be the same situation here  
6 when they say: How long will it take you to get  
7 your permit? Well, we know the EIS is going to take  
8 a couple of years. We don't know how long it's  
9 going to take if it's challenged. We don't know if  
10 it's going to be challenged. I mean, that's an  
11 unknown until the challenge actually occurs. We  
12 don't know how long it's going to take to get  
13 through the process in order to get an SUP. We can  
14 make best guess.

15           But keep in mind, back when they  
16 originally built this landfill, there was only sugar  
17 cane. That was all that was out there, so there was  
18 really not a lot of challenges to it. Now it's not  
19 the same. So given the emotional nature of the  
20 landfill issue, yes, it's taken a long time, but  
21 it's almost impossible to predict that time.

22           Q.     I'm sorry. I don't have your CV in front  
23 of me. How long have you been with the City  
24 Department of Environmental Services?

25           A.     I started with the City Department of

1 Environmental Services originally in 2001 through  
2 2002, and then again from 2009 to present.

3 Q. The City went through the SUP process in  
4 2003?

5 A. That's correct.

6 Q. So even with all that experience, you  
7 still couldn't know how long it would take to go  
8 through the process?

9 A. Well, I guess, you know, we can only go by  
10 best guess, and I can tell you from on the  
11 wastewater side, we know that wastewater projects  
12 seem to be controversial at times. The typical time  
13 for doing the design, planning -- and the planning  
14 actually involves permitting, would be three to two;  
15 so three years planning, two years design.

16 But you never know. I mean, we have  
17 projects that have been out there for over ten  
18 years. The other day in the City Council there was  
19 an issue that came up and this thing had started  
20 back in the early 1990s and they still did not have  
21 their SMA. But they certainly weren't expecting it  
22 from that time to still be controversial to where  
23 they can't get their SMA.

24 Q. Among the other projects that's taken  
25 longer than you thought it would is the third burner

1 at H-POWER; right?

2 A. Yes. I remember we had that discussion  
3 back in 2001, that we needed to start with the third  
4 burner, yes.

5 Q. And that's an alternative to landfill?

6 A. Yes. That is a diversion from landfill,  
7 yes.

8 Q. You and Ms. Viola talked about other  
9 potential diversions and I guess I'd kind of like to  
10 look at some things that other municipalities are  
11 doing.

12 Mr. Miller, I've handed you a document  
13 marked Exhibit K190 --

14 MS. VIOLA: Mr. Steinberger.

15 MR. CHIPCHASE: I'm sorry. Mr.  
16 Steinberger. You're quite right.

17 BY MR. CHIPCHASE:

18 Q. Mr. Steinberger, let's try this again.  
19 I've handed you a document marked Exhibit K190. Do  
20 you see that?

21 A. Yes, I do.

22 Q. It's titled Biosolids Recycling. To the  
23 left it says King County Always At Your Service.

24 Do you see that?

25 A. Yes.

1 Q. If we look down on the second page, third  
2 paragraph down, the second sentence, and I'll read  
3 it for you. Tell me if you see it. King County has  
4 been partnering with various organizations and farm  
5 groups since 1973 to responsibly recycle its  
6 biosolids in ways that improve the soil and enhance  
7 the plant growth.

8 Do you see that?

9 A. Yes, I do.

10 Q. I'm going to hand you another document,  
11 marked K189.

12 Mr. Miller, Exhibit K189 --

13 A. Steinberger.

14 Q. I did it again to you. Mr. Steinberger,  
15 Exhibit K189 is entitled Biosolids. It's from the  
16 City of Los Angeles. Do you see that?

17 A. Yes, I do.

18 Q. All right. Would you look down on the  
19 first page and the heading titled From Ocean  
20 Disposal to Beneficial Use?

21 A. Yes.

22 Q. Do you see that?

23 A. Uh-huh.

24 Q. The third sentence in says: Beginning in  
25 1989, the city started an extensive beneficial reuse

1 program and has continued to beneficially reuse all  
2 the biosolids produced at HTP and TIWRP since that  
3 time.

4 Do you see that?

5 A. Yes.

6 Q. When did the City and County of Honolulu  
7 start its biosolids recycling program?

8 A. Well, the first attempt at biosolids  
9 recycling program was actually in 1994, and at that  
10 time the City was attempting to enter into a  
11 contract with a company called Enviro. Enviro  
12 created a soil amendment that utilized biosolids  
13 plus ash. The ash would be coming from either the  
14 AES facility or the H-POWER facility. In the end,  
15 it looked as though it was going to be the AES  
16 facility because of issues that Department of Health  
17 had with the H-POWER ash.

18 The problem was that this, again, was a  
19 rather emotionally-charged issue. There were some  
20 very politically powerful people in the Kalaeloa  
21 area at the time. It was simply Campbell Industrial  
22 Park. And they objected to having an industrial  
23 facility in an industrial-zoned area, and the  
24 project eventually came to an end.

25 The next attempt at trying to do something



1 with the biosolids, we engaged into an agreement  
2 with the U.S. Navy. The U.S. Navy was composting  
3 their biosolids from the Fort Kamehameha treatment  
4 plant, which is located over by Pearl Harbor, and so  
5 what we had was this agreement where we would take  
6 our biosolids over to the site that the Navy  
7 composted and for several years we enjoyed this  
8 partnership. Eventually, the Navy, when they were  
9 going to close Kalaeloa, chose to no longer continue  
10 with this partnership, and so then, once again, we  
11 were left without any means or methods to deal with  
12 our biosolids.

13 The last one that we engaged in -- I won't  
14 say the last one, but the largest one was the  
15 Synagro project that we started back in about -- I  
16 guess we probably got started in about 2003, 2004  
17 time frame, of which all of the product, all of the  
18 biosolids at Sand Island, which is the state's  
19 largest treatment plant, is now converted into a  
20 pellet that -- and like I said, that 92, 93 percent  
21 of that is distributed for reuse.

22 And, of course, we are now engaging in  
23 this contract with HER to take care of the remainder  
24 of the -- the other two large plants, Kailua and  
25 Honouliuli.

1 MR. CHIPCHASE: Let's take a break so --

2 CHAIRWOMAN PINGREE: I think we're okay.  
3 How much longer -- do you have quite a while to go?  
4 Okay. Why don't we go ahead and take ten?

5 (Break taken.)

6 CHAIRWOMAN PINGREE: Back on the record.

7 BY MR. CHIPCHASE:

8 Q. Mr. Steinberger, we were talking about  
9 biosolid diversion before we broke and you mentioned  
10 that the City tried to get started in '94 but  
11 ultimately that didn't go anywhere.

12 A. That's correct.

13 Q. You talked about the cooperation you had  
14 with the Navy facility in Kalaeloa, but that was  
15 only for the Honouliuli wastewater plant; right?

16 A. That's correct.

17 Q. So then finally we get to the City's own  
18 facility, the Synagro facility in Sand Island;  
19 right?

20 A. Yes. Well, let me clarify. Synagro is  
21 the operator.

22 Q. Fair enough.

23 A. It's the City's facility.

24 Q. Good clarification. When did that  
25 facility open?

1           A.       That facility became operational -- I  
2 believe it was in 2008.

3           Q.       Mr. Steinberger, I've handed you a copy of  
4 a document marked Exhibit K195. It's an article  
5 from a publication called BioCycle.

6                    Do you see that?

7           A.       Yes, I do.

8           Q.       The date down there is December 2009. Do  
9 you see that?

10          A.       Yes.

11          Q.       I'd just like to point out a couple of  
12 things in it. If we go to the second page and look  
13 at the third paragraph down, do you see the  
14 paragraph that begins: In San Fernando?

15          A.       Yes, I do.

16          Q.       In San Fernando, Crown Disposal, parents, a  
17 sister company to Community Recycling, close parents,  
18 started collecting residential organics in 2002,  
19 along with trash and recyclables.

20                    Do you see that?

21          A.       Yes, I do.

22          Q.       If we jump down toward the bottom, we see  
23 the reference to San Francisco. Do you have that?

24          A.       Yes.

25          Q.       Quote, Mayor Gavin Newsome passed a

1 mandatory source separation ordinance in June 2009,  
2 which came into effect in October. The first of its  
3 kind in the U.S., the ordinance requires residents  
4 and businesses to separate organics and recyclables  
5 from the garbage.

6 Do you see that?

7 A. Yes, I do.

8 Q. Actually, I skipped over one that I wanted  
9 to hit. Right below the San Fernando quote, back up  
10 on the same page, it says Los Angeles.

11 Do you see that?

12 A. Yes, I do.

13 Q. The City of Los Angeles launched a  
14 residential food waste collection pilot program  
15 in September 2008. Food scraps and food soiled  
16 paper are placed into existing green yard trimmings  
17 bins.

18 Do you see that?

19 A. Yes.

20 Q. If we just skip a couple of pages and go  
21 to page four, the first full paragraph at the top.  
22 It's a reference to Cedar Rapids. Do you see that?

23 A. Yes.

24 Q. Cedar Rapids began allowing residents to  
25 place vegetative food waste in their yard trimmings

1 carts in 1999.

2 Do you see that?

3 A. Yes, I do.

4 Q. Mr. Steinberger, I've handed you a copy of  
5 a document marked Exhibit K192. It's a printout  
6 from Waste Management's website. The title is  
7 Healthcare Waste Treatment Facilities.

8 Do you see that?

9 A. Yes, I do.

10 Q. If we look down at the second paragraph,  
11 it says: Waste Management offers the full  
12 complement of medical waste disposal services,  
13 including advanced autoclave and high-combustion  
14 incineration technologies.

15 Do you see that?

16 A. I do.

17 Q. If we look down at the bolded heading,  
18 Waste Management Resource Recovery and Recycling  
19 Facility, it says: Our resource recovery and  
20 recycling facility located in Chambers County,  
21 Texas, offers a complete range of sustainable,  
22 low-cost options to serve the waste disposal needs  
23 of the healthcare industry. Waste Management owns  
24 and operates the facility, which is the Southwest's  
25 largest high temperature combustion unit.

1 Do you see that?

2 A. Yes, I do.

3 Q. Then if we look down at the last bolded  
4 heading, Safe handling all categories of the waste  
5 healthcare facilities generate, the second bullet  
6 broken out there: We are a nationally recognized  
7 industry leader in using environmentally safe high  
8 temperature combustion to convert non-hazardous  
9 solid waste into electrical energy.

10 Do you see that?

11 A. Yes, I do.

12 Q. In fact, the current trend for disposing  
13 of medical waste is incineration; isn't that right?

14 A. The current trend for disposal of waste?

15 Q. Of medical waste.

16 A. Of medical waste? You know, I couldn't  
17 answer that as far as on a national basis. I know  
18 that -- you know, you referred to earlier with King  
19 County. I know that King County in their website  
20 indicates that any medical waste has to be properly  
21 treated by autoclave or other means. So without  
22 knowing what goes on nationally as far as medical  
23 waste, because we are not in the business of, you  
24 know, sterilizing medical waste -- that is between  
25 the generator of the medical waste and the treatment

1 contractor for the medical waste.

2 Q. Okay. Mr. Steinberger, who is Dr. Hari  
3 Sharma?

4 A. I believe Dr. Sharma was here earlier this  
5 morning testifying.

6 Q. I've handed you a copy of Exhibit K247.  
7 Do you have that?

8 A. Yes, I do.

9 Q. It's entitled Geoenvironmental  
10 Engineering. Do you see down there at the bottom  
11 the two authors are Hari D. Sharma and Krishna R.  
12 Reddy? Do you see that?

13 A. Yes, I do.

14 Q. This is an excerpt, but if you could turn  
15 to what is page 613, which is our third page of the  
16 exhibit. Do you see the heading 15.3.4, Infectious  
17 Medical Waste?

18 A. Yes, I do.

19 Q. If we look down at the last paragraph of  
20 that section we see -- I'll read it for you --  
21 quote, The current trend for disposal of medical  
22 waste is through incineration because, as with most  
23 wastes, it greatly reduces the volume and it assures  
24 destruction and sterilization of infectious  
25 pathogens.

1 Do you see that?

2 A. Yes, I do.

3 Q. You don't have any reason to disagree with  
4 Dr. Sharma, do you?

5 A. I have no reason to disagree.

6 Q. On the subject of diversion and  
7 alternative technologies, you and Ms. Viola had  
8 talked about plasma gasification.

9 A. Yes.

10 Q. And you said that you had closely tracked  
11 the facility in Japan.

12 A. That is correct.

13 Q. Have you also closely tracked the facility  
14 that Waste Management co-owns in Oregon?

15 A. No, I have not.

16 Q. Are you aware that a company called S4  
17 Solutions has developed a plasma gasification plant  
18 in Arlington, Oregon?

19 A. No, I'm not.

20 Q. Mr. Steinberger, I've handed you a copy of  
21 a document marked Exhibit K193. It's a printout  
22 from the wired publication dated February 2012.

23 Do you see that?

24 A. Yes, I do.

25 Q. In the article it talks about the Columbia



1 Ridge landfill. Are you familiar with that  
2 landfill?

3 A. I have never seen the landfill. I do know  
4 that Hawaii Waste was proposing to utilize the  
5 Columbia Ridge landfill as a means of disposal of  
6 Honolulu's MSW.

7 Q. That was one of the shipping options?

8 A. That was one of the shipping options.

9 Q. If you look down at the third paragraph,  
10 it says: But as of November, not all the trash  
11 arriving at Columbia Ridge has ended up buried.

12 Do you see that?

13 A. Yes, I do.

14 Q. It's a long article and I don't mean to  
15 take you through all parts of it. If we look at the  
16 next page, the very top, the second sentence, it  
17 talks about this alternative that they're using for  
18 landfill. It says it uses plasma gasification, a  
19 technology that turns trash into fuel without  
20 producing emissions. In other words, a guilt-free  
21 solution to our waste problem.

22 Do you see that?

23 A. I see that.

24 Q. If I take you all the way to the last page  
25 of the article, down there toward the bottom -- it

1 would be, actually, the second to the last full  
2 paragraph on the last page. The final sentence  
3 says: Once it's running at full capacity -- meaning  
4 the plasma gasification plant -- it will process 25  
5 tons of waste a day.

6 Do you see that?

7 A. No, I don't.

8 Okay. I see it. Thank you.

9 Q. Mr. Steinberger, I've handed you a  
10 printout from the company we were just reading  
11 about, S4 Energy Solutions' website. It's marked  
12 Exhibit K198. Do you have that?

13 A. Yes, I do.

14 Q. If you look down at the About S4 Energy  
15 Solutions section, it says: S4 Energy Solutions was  
16 established as a joint venture between Waste  
17 Management, Inc. and InEnTec, LLC. to develop,  
18 operate and market plasma gasification facilities  
19 using plasma enhanced melter technology.

20 Do you see that?

21 A. Yes, I do.

22 Q. Waste Management operates the Waimanalo  
23 Gulch Sanitary Landfill; correct?

24 A. That's correct.

25 Q. How much medical waste does Oahu generate

1 each year?

2 A. I don't really have that off the top of my  
3 head. I have to go back to the records that Waste  
4 Management maintains.

5 Q. Mr. Steinberger, really I just want to  
6 refresh your recollection on that point, because we  
7 did talk about it the last time we met. I'm going  
8 to hand you a copy of your transcript and if you  
9 would look down with me where we discussed medical  
10 waste. I've highlighted it.

11 A. Yes.

12 Q. So Mr. Steinberger, after looking at that,  
13 your prior testimony, does that refresh your  
14 recollection that we generate about 10,000 tons of  
15 medical waste annually?

16 A. Yes. I believe that was from a document  
17 that you showed me.

18 Q. That's right.

19 A. And I agreed that that was what was in the  
20 document.

21 Q. So a plasma gasification plant that  
22 processes roughly 25 tons a day would very nearly  
23 take care of all the medical waste generated on  
24 Oahu, wouldn't it?

25 A. Yes, it would.

1 Q. On the subject of diversion, San  
2 Francisco, I think you said, is at a 78 percent  
3 diversion rate.

4 A. That's what they indicate, yes.

5 Q. And they accomplished that without any  
6 waste-to-energy facility?

7 A. That is true.

8 Q. Mr. Steinberger, I've handed you a copy of  
9 a document marked Exhibit K196. It's a printout  
10 from a San Francisco website. If you look down at  
11 the -- really the heading of the article is titled  
12 Zero Waste. Do you see that?

13 A. Yes, I do.

14 Q. And down below it lists Achievements, and  
15 it says: San Francisco has some of the best waste  
16 reduction programs and policies in the country and  
17 we couldn't have done it without the cooperation and  
18 support of the city agencies, and it goes on from  
19 there.

20 Do you see that?

21 A. I see that.

22 Q. Down below it talks about some of the  
23 things that San Francisco has done to achieve a high  
24 diversion rate. One of them, the first bullet says:  
25 Adopted goals of 75 percent landfill diversion by

1 2010 and zero waste by 2020.

2 Do you see that?

3 A. I see that.

4 Q. You understand, of course, that zero waste  
5 is a term of art; right?

6 A. Yes.

7 Q. It means at least 90 percent diversion  
8 from landfill?

9 A. Yes. I realize that, and it's a  
10 philosophy.

11 Q. Right. Exactly, a philosophy. So that's  
12 the goal San Francisco has adopted?

13 A. That's what they've adopted.

14 And similar to King County, that has  
15 several goals over the years, this may be amended as  
16 they approach 2020. Only time will tell.

17 Q. Only time will tell. That's true. But if  
18 we look at what they've actually done, if we look  
19 down at the second bullet point, it says they've  
20 diverted 77 percent, over 1.367 million tons from  
21 the landfill; right?

22 A. That's right.

23 Q. Number two, reduced landfill disposal to  
24 its lowest level in 29 years.

25 Do you see that?

1 A. I see that.

2 Q. Number three, established the first and  
3 largest urban food scraps composting collection in  
4 the U.S.

5 Do you see that?

6 A. Yes, I do.

7 Q. If we look at the next page, top bullet  
8 point: Pioneered co-mingled recycling collection,  
9 parens, paper, bottles and cans together, close  
10 parens, among private homes, apartments, businesses  
11 and city government locations on the same route.

12 Do you see that?

13 A. Yes.

14 Q. Next one: Constructed state of the art  
15 facilities for the efficient processing and  
16 transferring of recyclable materials, construction  
17 and demolition debris and compostable organics.

18 Do you see that?

19 A. Yes, I do.

20 Is that all in this?

21 Q. That's all for now.

22 A. May I indicate one thing about San  
23 Francisco's program?

24 Q. Please.

25 A. As you may or may not be aware, San

1 Francisco is a fully privatized system and there are  
2 some laws in place that were passed by the City  
3 Council having to do with food waste. Also, they  
4 have a fee for pick up. If you participate in  
5 recycling, you get a reduced fee and that fee is  
6 based off of the amount of MSW that you place in  
7 your bin. So for us, say everybody -- I assume  
8 everybody here has a gray bin. In San Francisco, if  
9 that gray bin is being used over half full, then  
10 you're paying \$82 a month in the collection fee. So  
11 there is a lot of incentive, because they do have  
12 the luxury of having a collection fee and their  
13 system is wholly privatized.

14 Q. So it sounds to me like -- and I was going  
15 to talk about this later. We'll just touch on it  
16 now though. It's a question of priorities. For San  
17 Francisco, they've made landfill diversion a  
18 priority, so they have instituted a collection fee  
19 and these other --

20 A. Well, I don't know -- I'm sorry.

21 Q. Go ahead.

22 A. I don't know if it's landfill diversion  
23 that's a priority or a sustainable environment is  
24 the priority.

25 Q. Fair enough. But in this instance,

1 sustainable environment and landfill diversion  
2 merge, right, because you have recyclable -- maximum  
3 recycling of materials; right?

4 A. There's a relationship between everything,  
5 that is correct.

6 Q. If Arlington, Oregon can have plasma  
7 gasification and if King County and Los Angeles have  
8 had biosolid recycling for 20 plus years, if San  
9 Francisco can achieve a 78 percent diversion rate  
10 without any waste-to-energy, why can't Honolulu do  
11 those things?

12 A. First off, on the medical waste, again,  
13 the responsibility for treatment of medical waste  
14 actually lies between the generator of the medical  
15 waste and a contractor. The City is not in the  
16 business of treating medical waste, so -- and that's  
17 how it has been.

18 Now, is it going to be that way for all  
19 time? I can't really say. Perhaps if there's the  
20 ability for us to take the medical waste up at  
21 H-POWER, we may do so, after it has been autoclaved.  
22 So that's kind of a key issue, after it's been  
23 autoclaved. So we would still want it to be treated  
24 medical waste before it went to H-POWER facility.

25 As far as the plasma gasification, a lot



1 of these projects at 25 tons a day, that's 50,000  
2 tons -- or 50,000 pounds, I believe, a day, and  
3 we're talking 10,000 tons of medical waste a year.  
4 That's -- I don't know how cost effective that would  
5 be. Obviously, if they discontinued the plasma arc  
6 facility that they had out in Kalaeloa because of  
7 cost, it probably doesn't pencil out for them.

8           Keep in mind that these facilities do take  
9 a lot of power to operate, and when you're dealing  
10 with stand-by charges from Hawaiian Electric or your  
11 impact fees, it's significant and it's a matter of  
12 whether or not it's -- they can make a -- it's  
13 affordable. Because everything you do on the  
14 medical waste side is going to be passed on to the  
15 people who are seeking health care. So it's a  
16 trickle-down issue.

17           And keep in mind we are a limited  
18 population here, and I would suspect -- I'll check  
19 with Waste Management, because I know some of the  
20 people over there are, and I also know some of the  
21 people in Oregon -- if that's a pilot project  
22 intended not for generating revenue and there's no  
23 charge to anybody for operating it or of it is  
24 indeed a cost that's passed on to the people who  
25 bring their solid waste, Seattle and I guess

1 somebody in Portland, Oregon.

2 Q. I asked why can't Honolulu do that, and I  
3 think I got two parts, two answers to that.

4 Specifically on medical waste, Honolulu  
5 didn't handle the processing or decontamination of  
6 medical waste; right?

7 A. That's correct.

8 Q. But Honolulu does own the landfill; right?

9 A. Honolulu does own the landfill.

10 Q. And Honolulu does own H-POWER, although it  
11 doesn't operate it?

12 A. That's correct.

13 Q. So Honolulu does, in the end, deal with  
14 the disposal of medical waste; right?

15 A. In the end, yes, it ends up in the  
16 facility.

17 Q. So if, as Dr. Sharma writes in his book,  
18 burning medical waste is the most common practice  
19 these days, why can't Honolulu do that?

20 A. First off, you would have to understand  
21 what occurs at H-POWER. H-POWER processes some  
22 600,000 tons plus a year. And under the current  
23 configuration, there is a significant amount of  
24 preparation that goes before it is taken into the  
25 burner, and so we produce what's called a refuse-

1 derived fuel, and I may use the abbreviation RDF.  
2 And during that preparation, the waste that goes in  
3 is broken up and taken down into smaller components.  
4 Some of these smaller components tend to get caught  
5 up into the apparatus, which then requires you to  
6 take the system down to do maintenance to free it of  
7 any of the debris that may be caught within there,  
8 within the apparatus. So given that, for that  
9 reason, we have hesitated -- or certainly Covanta  
10 has hesitated at taking medical waste.

11 That being said, they have taken medical  
12 waste in the past. And some of the medical waste  
13 that they've taken has been in the forms of sheets  
14 and in forms of gloves and smocks and these kind of  
15 things. So they have taken it before.

16 Now, with the third boiler on line,  
17 there's not as much pre-preparation. So since  
18 there's not much pre-preparation, there may be the  
19 opportunity to where they can take it. You know,  
20 it's going to -- we will see how it works out.

21 Q. Well, sitting here today, can you tell me  
22 once the third boiler is operational -- let's just  
23 peg it off that date -- why Honolulu couldn't do  
24 what according to Dr. Sharma is mostly done with  
25 medical waste?

1 A. When the third boiler becomes operational?

2 Q. Yeah. Why couldn't we?

3 A. Well, again, I'd have to sit down and talk  
4 to Covanta and see whether or not there's any reason  
5 why the new boiler, which is of a different  
6 technology, cannot handle the medical waste.

7 Q. But just you, sitting here today, do you  
8 know of any reason?

9 A. No, not given what I know about the third  
10 boiler and the way that it operates. I don't see  
11 why they could not take the material up there, as  
12 long as it's free of sharps.

13 Q. And the same is true with biosolids;  
14 right? I mean, I understand that ideally Honolulu  
15 wants to convert the biosolids into the highest  
16 grade reusable product, the class A you talked  
17 about.

18 A. Yes.

19 Q. And that's what the Synagro facility does;  
20 right?

21 A. Yes.

22 Q. And the in-vessel conversion facility,  
23 when it's on line in 2013, will do that, as well;  
24 right?

25 A. That's correct.

1 Q. For any remaining sewage sludge -- or  
2 treated biosolids, I suppose, coming out of the  
3 wastewater treatment plant, you could burn that in  
4 the third boiler, couldn't you?

5 A. You could -- well, you could certainly run  
6 it through as a -- and incinerate it. The question  
7 comes down to how much BTU value is there in the  
8 sludge after it's been digested.

9 Q. How much energy it's going to produce?

10 A. How much energy it's going to produce.  
11 And keep in mind, when you digest sludge, the whole  
12 process reduces your volatile organic compound and  
13 that's what releases your methane so that methane  
14 can be reused at the treatment facility to generate  
15 electricity. So once that's removed out of the  
16 sludge, your BTU value from the raw sludge to the  
17 digested sludge is significantly reduced.

18 Plus, it's coming in at about, I'm going  
19 to say, about 28 to 30 percent solid, so there's a  
20 lot of moisture in it, so that moisture also  
21 requires a certain amount of energy to process. So  
22 what it comes out to is there's probably not much  
23 energy returned from the digested biosolids.

24 Q. Low net energy?

25 A. Low net energy or no energy at all.

1 Q. All right. But it can be burned?

2 A. It can be burned.

3 Q. So if the City's priority is let's get  
4 biosolids out of the landfill, when the third boiler  
5 is on line, you will have the ability to do that?

6 A. We'll have the ability to do that.

7 Q. Let's talk a little bit about other  
8 priorities. Mr. Steinberger, I've handed you a  
9 document marked Exhibit K251. It's a printout from  
10 the Honolulu.gov website.

11 Do you see that?

12 A. Yes, I do.

13 Q. It appears to me to be a press release  
14 from the Department of Environmental Services. Is  
15 that what it looks like to you?

16 A. It probably was initially a press release  
17 that was then placed on the City's website.

18 Q. Okay. I'd just like to look at a couple  
19 parts of it. One of the things it talks about here  
20 is the third boiler. If we look down at the -- I  
21 guess it's the fourth full paragraph, where it  
22 starts, In response.

23 Do you see that?

24 A. Yes, I do.

25 Q. If we just scan down -- it's kind of a

1 long sentence and I don't want to have to take us  
2 through all of it. But if we look down at the very  
3 last semi-colon: And expanding the facility in line  
4 with both the population growth and the types of  
5 waste handled allowing the city to divert 90 percent  
6 of all municipal solid waste from the landfill with  
7 the combination of recycling and energy recovery.

8 Do you see that?

9 A. Yes, I do.

10 Q. And if we look down at the second page,  
11 the very last paragraph in this ENV press release,  
12 it says, quote: When complete in mid 2012, H-POWER  
13 will be capable of powering 75,000 Oahu homes,  
14 contributing eight percent of Oahu's power using a  
15 renewable source and diverting nearly 90 percent of  
16 our non-recyclable household opala from the  
17 landfill.

18 Do you see that?

19 A. Yes, I do.

20 Q. So that's just with the addition of  
21 H-POWER. That doesn't take into account the in-  
22 vessel conversion facility that you talked about.

23 A. Well, it's all -- it's talking about the  
24 entire program.

25 Q. Well, let me make sure I understand that.

1 This is talking about H-POWER coming on line in mid-  
2 2012; right?

3 A. Yes.

4 Q. And I understand that got pushed back to  
5 the end of the year, certainly by the very beginning  
6 of next year. Right?

7 A. Right now, they're expecting to start  
8 first fire at the end of this month, shake down  
9 through August, September, and then they should be  
10 fully functional by October, November.

11 Q. The in-vessel conversion facility doesn't  
12 come on line until 2013?

13 A. That's correct.

14 Q. So this 90 percent diversion is  
15 accomplished without considering that  
16 as-yet-completed facility?

17 A. Well, again, you know, we're talking about  
18 goals. We're not talking about firm numbers.  
19 Again, if you go back to page one, we're talking  
20 about a combination of our recycling and energy  
21 recovery units.

22 Now, you know, originally we were hoping  
23 to have the HER facility on line by 2012. However,  
24 the contractor has now slipped into 2013. So again,  
25 it's just one of those unpredictable things as to



1 why is it taking extra time. He's in the permitting  
2 process right now himself.

3 Q. So when that facility comes on line, now  
4 we hope in 2013, we're looking at the capacity to  
5 accept 15- to 20,000 tons of sewage sludge annually;  
6 right?

7 A. We could accept sewage sludge, but again,  
8 the --

9 Q. I'm sorry. I meant the HER facility.

10 A. The HER facility, yes.

11 Q. And in addition to that, another 80- to  
12 85,000 tons of green waste?

13 A. Yes.

14 Q. Mr. Steinberger, I've handed you a copy of  
15 a document marked K230. It's titled Technical  
16 Memorandum Sand Island WWTP Evaluation of Sludge  
17 Processing Alternatives, Oahu, Hawaii, Final March  
18 2012.

19 Do you see that?

20 A. Yes, I do.

21 Q. It's prepared by AECOM for the Department  
22 of Environmental Services.

23 A. Correct.

24 Q. If I understand this -- this is just an  
25 excerpt, but if I understand the evaluation

1 completely, one of the goals was to evaluate the use  
2 or value of adding a second digester to the Synagro  
3 facility.

4 A. Actually, I believe that this particular  
5 report was done -- oh, no. Maybe this is the one  
6 that's part of the master plan. There were actually  
7 several reports that were prepared. One of them was  
8 in response to a council resolution that said we  
9 need to do basically what I would define as a  
10 Wikipedia of alternative technologies that were  
11 being looked at, whether in a conceptual stage or in  
12 an early development stage or piloting or actually  
13 were on line. And so there was also another  
14 document that came out that said, okay, what are we  
15 going to do for Sand Island for the near future,  
16 since we are going to be upgrading to full secondary  
17 by 2035, at which time the technology may be  
18 different as to how we treat our biosolids, since  
19 that is 25 years out.

20 Q. Looking at this particular summary -- and  
21 I understand that there were a number of them --  
22 this study is specifically evaluating a second  
23 digester at the Sand Island facility?

24 A. Well, I think that was the eventual  
25 conclusion that they came to, was instead of trying

1 to do something else, to just proceed forward with a  
2 second digester and continue on with the operations  
3 as we are now.

4 Q. What would a second digester do for the  
5 City and County of Honolulu?

6 A. It would give us redundancy at the  
7 facility, being the State's largest facility. It  
8 would also take the over-capacity off the current  
9 digester that is out there now.

10 Q. Does ENV support adding a second digester?

11 A. Yes, we do.

12 Q. Does the City support adding a second  
13 digester? I mean the City Council, I suppose.

14 A. The City Council at first did not support  
15 a second digester and there has been a discussion  
16 that's been going on for well over a year. Now they  
17 have turned around and said they do support a second  
18 digester. What they don't like is the contractor  
19 that is operating the solids handling facility.

20 Q. So not liking the contractor is keeping us  
21 from moving forward with the second digester?

22 A. Yes, it is. Because the City Council has  
23 the authority to fund or not fund projects, and  
24 although we put in the appropriation, last year they  
25 removed the appropriation. And again with the

1 latest draft that we got, they again removed the  
2 appropriation for the second digester.

3 Q. So for the City Council, it's not a  
4 priority?

5 A. It's not a priority, apparently.

6 Q. In the report, if you would look at what  
7 we've marked page nine down at the bottom --

8 A. Yes.

9 Q. -- if we look down at the third bullet  
10 point, the second sentence, if you have it: A goal  
11 for CCH, City and County of Honolulu, is the  
12 elimination of land-filling of materials other than  
13 ash in the near future.

14 Do you see that?

15 A. I'm looking for it.

16 CHAIRWOMAN PINGREE: I'm not sure if we  
17 have a page nine.

18 A. I do see it.

19 MR. CHIPCHASE: Could we go off the record  
20 for a second?

21 (Discussion off the record.)

22 CHAIRWOMAN PINGREE: I see it. Thank you.

23 BY MR. CHIPCHASE:

24 Q. Let me start over, Mr. Steinberger. If we  
25 look at what we've marked as page nine, it's

1 actually page 11 of 13 in this part of the document  
2 titled Recommendation -- if we look down at the  
3 third bullet point, the second sentence is: The  
4 goal for CCH is the elimination of land-filling of  
5 materials other than ash in the near future.

6 Do you see that?

7 A. Yes, I do.

8 Q. Consistent with that, Mr. Steinberger,  
9 several times today I heard you testify that the  
10 goal was maximum diversion. Right?

11 A. That's correct.

12 Q. If the City and County of Honolulu's goal  
13 is to eliminate the land-filling materials in the  
14 near future and to maximum diversion, the City won't  
15 mind or ENV won't mind deadlines, then, on its  
16 permit for Waimanalo Gulch.

17 A. Yes, we will.

18 Q. Why?

19 A. Because, again, you are putting us into a  
20 position that is -- again, as you questioned me  
21 about earlier, saying that we can predict all  
22 processes as far as what we need to do and the -- as  
23 far as getting an alternate site to deal with our  
24 special waste.

25 Q. So you want to have a goal to eliminate

1 waste, but you don't want to be held to that goal?

2 A. I want to be able to set the goal.

3 Q. And when you accomplish it?

4 A. Well, I want to be able to set the goal,  
5 but it has to be a realistic goal. I mean, to say  
6 that we can have a brand new functioning landfill by  
7 July 31st, 2012 is just not realistic.

8 And I believe the Planning Commission,  
9 under their previous decision, recognized that and  
10 they said, Why do we keep putting dates on this, why  
11 not just keep ENV -- you know, their feet to the  
12 fire and we can call them in at any time and ask  
13 them, What is your progress?

14 And actually, this is a great venue. I  
15 think the commission has heard what we are doing.  
16 So for that reason, they didn't put a deadline on  
17 it.

18 It was the Land Use Commission that put  
19 the additional condition on top of the decision of  
20 the county Planning Commission.

21 Q. How does this body hold ENV accountable or  
22 hold it to its deadlines, put its feet to the fire,  
23 as you said, without deadlines?

24 A. Because what you're telling me is by  
25 putting a deadline, I have to meet that deadline

1 even though you are critical that we were not able  
2 to meet the deadline of having the diversion in  
3 place, as well as the functioning E6. And you said,  
4 Why can't you. And I told you, There's a lot of  
5 just unforeseeable issues that you just do not know  
6 how to deal with.

7 Q. How about meet the deadline or have a good  
8 reason for not meeting it?

9 A. Again, we are moving in the direction. We  
10 have started the process with the selection  
11 committee. We are moving forward. We have made  
12 significant progress over the past few years. We're  
13 going to continue to be making significant progress  
14 over the next few years. But why would you want to  
15 put a deadline on it that may not be able to be  
16 achievable?

17 Q. To make sure that we move forward.

18 A. We are moving forward.

19 Q. If we look at the history of the landfill,  
20 we were here in 2003; right?

21 A. Yes.

22 Q. And the promise was it would close in  
23 2008; right?

24 A. That was the statement that was made from  
25 the administration at that time.

1 Q. That didn't happen, did it?

2 A. No. Because when the selection went to  
3 the City Council, as is the process, the City  
4 Council recognized that Waimanalo Gulch was not on  
5 the list. They did put it on the list. Then the  
6 City Council chose that as the new site.

7 Q. So the net effect was this landfill  
8 continued on past 2008.

9 A. As designated by the City Council.

10 Q. So then we were back again the next year,  
11 and the net effect was another extension; right?

12 A. Yes, another extension, again, for -- to  
13 be able to continue to address our solid waste  
14 needs.

15 Q. And now, despite the goal stated in this  
16 report, that the goal of the CCH is to eliminate  
17 land-filling of materials other than ash in the near  
18 future, the City is back again not asking for a  
19 five-year or even a seven-year extension to develop  
20 a new landfill, but an unlimited extension; right?

21 A. An unlimited extension? I would like us  
22 to be able to have the ability to properly address  
23 the issue of either an alternate or supplemental  
24 site without being constrained by some timeline  
25 which will end up bringing us back to this committee



1 again.

2           The next time I come to this commission, I  
3 would prefer to come in with an alternate site that  
4 we would be asking for approval on an SUP, not for  
5 the same site or another extension of the deadline.  
6 This is just not a good way for a public utility to  
7 operate.

8           Q.       Do you think it's better for the public  
9 utility to operate under a Special Use Permit  
10 without a deadline on that permit?

11          A.       I think that you have to allow a public  
12 utility to deal with the public's needs and public  
13 health and without putting restrictions on them such  
14 as a deadline to meet the desires of a community.

15          Q.       So even though this body and ultimately  
16 the Land Use Commission has ultimate oversight over  
17 ag land -- I mean, that's why we're here. Right?

18          A.       Yes.

19          Q.       You wouldn't even favor conditions that --  
20 since you have the ability to do it -- require you  
21 to burn sewage sludge after H-POWER is in effect,  
22 except during down times?

23          A.       No. That is an operational issue, and we  
24 should not be constrained on operations to only one  
25 solution to a problem that may occur in the future.

1 Q. So then what ENV wants is to continue to  
2 be able to dispose of whatever it wants under its  
3 solid waste management permit in the landfill as  
4 long as the landfill has capacity?

5 MS. VIOLA: Objection. That is not what  
6 he stated.

7 MR. CHIPCHASE: It's a question. He can  
8 disagree with me.

9 A. No. I don't agree with what your  
10 statement is. We have established a program. We  
11 would like to move forward with that program, but we  
12 don't want to be constrained by dates and timelines.  
13 It does not work well.

14 BY MR. CHIPCHASE:

15 Q. So then just looking only at the ENV's  
16 SUP, what ENV wants on its SUP is the ability to  
17 continue to dispose of any waste it wants consistent  
18 with the Solid Waste Management Plan in the landfill  
19 as long as that landfill has capacity?

20 A. That's not what I said. I said that we  
21 want that condition removed that places a  
22 constraining date that the Land Use Commission  
23 placed on top of the decision from the Planning  
24 Commission, so that ENV can meet the public's needs.

25 Q. What's the effect of removing that date,

1 in terms of the continued operation of the landfill?  
2 When will it close?

3 A. I cannot give you a firm answer on that.

4 Q. Okay. So you want an open-ended date for  
5 the continued operation of the landfill?

6 A. I want to be able to continue to meet the  
7 public's needs.

8 Q. And you don't want any restrictions on the  
9 kind of waste you can dispose of in the landfill,  
10 even though you acknowledge that we could dispose of  
11 those wastes by other means once H-POWER is on line?

12 MS. VIOLA: Objection. That's not an  
13 accurate statement of what he testified to.

14 A. And I did not say that. I said we have a  
15 program in place and we'd like to be able to  
16 continue moving forward with that program.

17 BY MR. CHIPCHASE:

18 Q. You don't want any restriction on the  
19 ability to dispose of sewage sludge or biosolids at  
20 the landfill, even though once H-POWER is up and  
21 running, you could burn it?

22 A. Well, let me ask you this: If H-POWER is  
23 down for maintenance and HER is now down because of  
24 perhaps a weather event, you're telling me that you  
25 want a restriction where I have nowhere to go with

1 my biosolids; therefore, creating a public health  
2 issue across the island?

3 Q. Well, happily, in this relationship I get  
4 to ask the questions.

5 A. I understand that.

6 Q. Let me clear that up. You could have,  
7 right, an exception to that restriction for such  
8 events, couldn't you?

9 A. Well, we're -- you know, Mr. Chipchase,  
10 you're not -- being that you don't understand the  
11 operation of a public utility and the overall needs  
12 of the people of Honolulu, it's -- I understand that  
13 it's difficult for you to understand my side of the  
14 picture. And so yes, it's very easy for you to say,  
15 You can do this and you can do that, regardless of  
16 what -- how it's going to constrain you in the  
17 future, whether you know what the future is going to  
18 bring or not. It's kind of a -- not a good line of  
19 questioning, if I may.

20 Q. Actually, you don't get to, but --

21 A. I can try.

22 Q. The question stands: You don't want a  
23 condition in your permit that prohibits you from  
24 disposing of biosolids, even though you acknowledge  
25 once H-POWER is on line you can burn it?

1 MS. VIOLA: Objection. Argumentative and  
2 this has been asked and answered a number of times.

3 MR. CHIPCHASE: It actually hasn't been  
4 answered, Chair. It's been asked.

5 MS. VIOLA: He answered the question  
6 earlier.

7 CHAIRWOMAN PINGREE: Go ahead and answer  
8 it.

9 A. As I said, you need to have the  
10 flexibility to deal with unforeseen conditions and  
11 if we have to be discharging or taking biosolids up  
12 to the landfill for a period of time -- that  
13 happens. Okay. And I gave you an example. If  
14 H-POWER is down and you decided that your whole  
15 program is the incineration of biosolids at H-POWER,  
16 then what? Then you would have to take it up to the  
17 landfill. If the HER process -- and keep in mind,  
18 this is a private company and if they decide that  
19 they cannot make it and decide to declare some type  
20 of a bankruptcy or whatever the situation is, then  
21 we're dealing with a large volume of biosolids again  
22 that we have to deal with.

23 You know, so again, what you're doing is  
24 you are handcuffing me as far as the ability to be  
25 flexible in maintaining the island's environment.

1 BY MR. CHIPCHASE:

2 Q. So the net effect of the flexibility is  
3 you get to state that these are these goals and  
4 these are what you want to do, but you don't have to  
5 be held accountable for it?

6 MS. VIOLA: Again, argumentative.  
7 Objection.

8 CHAIRWOMAN PINGREE: Sustained.

9 MR. CHIPCHASE: I withdraw the question.  
10 I think I'm done, Chair. I'd like to take a  
11 ten-minute break so I can look at my notes and see  
12 if I have any other questions.

13 CHAIRWOMAN PINGREE: Why don't we take, as  
14 you suggested, a ten-minute break and we'll resume  
15 at 3:20.

16 (Break taken.)

17 CHAIRWOMAN PINGREE: Back on the record.

18 ENV, please --

19 MR. CHIPCHASE: Chair, I hadn't passed the  
20 witness yet. I just wanted to look at my notes. I  
21 actually only have two quick questions and then I  
22 just need to move in some exhibits.

23 CHAIRWOMAN PINGREE: All right.

24 BY MR. CHIPCHASE:

25 Q. Mr. Steinberger -- and I have your name

1 right this time, I promise -- remind me when it was  
2 finally determined that the contractor that the City  
3 hired to ship waste, when it was finally determined  
4 that that contractor wouldn't be able to get the  
5 permits it needed.

6 A. Well, actually the contractor notified us  
7 that he could not get the permits that he needed,  
8 and the exact date I'm going to say was -- well, I  
9 don't have the exact date. I'm thinking it was  
10 around 2010 sometime.

11 Q. That's kind of what my recollection is  
12 too.

13 Since that time, what has the City done to  
14 determine whether it can ship waste off island?

15 A. Given the issues that were surrounding  
16 this contractor and the USDA's hesitancy to move  
17 forward with any other compliance agreements, we  
18 have not pursued anything.

19 MR. CHIPCHASE: Chair, at this time I  
20 would move in Exhibits K189, K190, K193, K195, K196,  
21 K198, K230, K247 and K251.

22 MS. VIOLA: No objection.

23 MR. SANDISON: No objection.

24 CHAIRWOMAN PINGREE: Thank you.

25 MR. CHIPCHASE: Pass the witness.

## E X A M I N A T I O N

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BY MS. VIOLA:

Q. Mr. Steinberger, Mr. Chipchase asked you a number of questions relating to San Francisco and their waste diversion program; correct?

A. Correct.

Q. And he represented that -- I believe this is Exhibit K196 -- that San Francisco has achieved 77 percent diversion without waste-to-energy.

A. Correct.

Q. And this waste diversion as contained in K196 includes diverting, establishing a food scraps program, recycling bottles, paper and cans and transferring recyclable materials and diverting construction and demolition debris all from the landfill; is that accurate?

A. I believe that's what the document states.

Q. And there still remains, based on this 77 percent diversion, there still remains approximately 23 percent that has to still be land-filled?

A. That's correct.

Q. So Honolulu, as you've represented in your prior testimony, has approximately about a 73 percent diversion from the landfill?

A. 72, 73 percent.



1 Q. 72, 73 percent. So fairly close to San  
2 Francisco?

3 A. Very close.

4 Q. And we are diverting the same type of  
5 waste; is that correct?

6 A. That's correct.

7 Q. We're diverting food waste. We're  
8 diverting green waste. We're diverting bottles.  
9 We're diverting recyclables like cardboard and  
10 newspaper, and then a lot of that, essentially, is  
11 either recyclable or it goes to the waste-to-energy  
12 facility?

13 A. That's correct.

14 Q. So conceivably, San Francisco and Honolulu  
15 are achieving the same diversion rate, which is a  
16 high diversion rate, in the 70s, through different  
17 programs; is that correct?

18 A. That's correct.

19 Q. So would you agree that based on this  
20 characterization as contained in K196 and based on  
21 your description of waste diversion in Honolulu,  
22 that San Francisco and Honolulu are essentially  
23 looking at the same remaining waste, approximately  
24 20 percent, that cannot be otherwise disposed of and  
25 has to be land-filled?

1 A. That's correct.

2 Q. So when Mr. Chipchase says, Well, why  
3 can't we do what San Francisco is doing and get rid  
4 of the remaining waste, is that necessarily  
5 accurate? I mean, do we have the option of using  
6 these alternative technologies for the remaining  
7 waste stream that goes to the landfill?

8 A. Well, again, as you correctly stated, San  
9 Francisco is diverting approximately 23 [sic]  
10 percent, and they consider themselves at the very  
11 high end. And I think their ultimate goal, if I'm  
12 correct, said that they wanted to get to 80 percent,  
13 which means that they're still going to be diverting  
14 waste to a landfill. Of course, the major  
15 difference with them is they can put it on a train  
16 and take it to another county and we can't.

17 Q. So they're conceivably dealing with the  
18 same type of waste that still has to be land-  
19 filled --

20 A. Yes.

21 Q. -- as Honolulu is?

22 A. Yes.

23 Q. For example, he also pointed to L.A. and  
24 King County as being able to land-apply biosolids.  
25 Is that something that is available to Honolulu?

1           A.       Well, we certainly don't have the  
2 available land that either the state of Washington  
3 or California has. And keep in mind, the type of  
4 biosolids that King County is diverting is mostly  
5 class B, which is a lower standard type of biosolid,  
6 which means that it does not have a complete  
7 pathogen kill. So that's why they take it out into  
8 a very broad, open country, as opposed to if you  
9 have a type A, you have a more -- a broader use of  
10 that product.

11                 Same with Los Angeles. Los Angeles has  
12 been hauling theirs out to Kern County, and this is  
13 the Hyperion plant, and recently Kern County passed  
14 an ordinance that was going to prohibit the land  
15 application of class B biosolids, so in response,  
16 Los Angeles went to what we call a Kern County class  
17 A. In other words, it's not a full class A. They  
18 don't have a complete pathogen kill in order to  
19 classify it as an EPA class A, but it's higher  
20 quality than the class B. So that was how they  
21 responded. But again, Kern County is the largest  
22 county in California and it extends all the way to  
23 the Arizona border, so they're pretty far away from  
24 anybody and anything.

25           Q.       Currently, does the Department of Health

1 approve of any land application of class B  
2 biosolids?

3 A. As I indicated, there's only one area, and  
4 that is over on the County of Kauai, and they're  
5 applying a class B -- a limited amount of class B  
6 for foraging crops; in other words, grass.

7 Q. So other than this specific instance,  
8 there's no approved land application -- DOH-approved  
9 land application for class B biosolids on Oahu?

10 A. No, there's not.

11 Q. So that option of land application that's  
12 been utilized by L.A. and King County is not an  
13 option that's available for Honolulu?

14 A. Certainly not at this time.

15 Q. Mr. Chipchase also talked to you at some  
16 length regarding the gasification facility in, I  
17 think, Oregon or -- let me refer to the exhibit.

18 A. Columbia Ridge landfill in Oregon.

19 Q. I think that's Exhibit 193. Let me  
20 clarify with you, Mr. Steinberger -- once the third  
21 boiler is up and running, will H-POWER be able to  
22 burn medical waste?

23 A. The configuration is such that there  
24 should not be a restriction against it. Again,  
25 we'll be discussing this with Covanta and see if it

1 has been included in their waste stream analysis.

2 Q. But Covanta has already indicated that  
3 there's one particular type of medical waste that  
4 they will not accept; is that correct?

5 A. They do not want to handle sharps.

6 Q. And this K193 exhibit, Mr. Chipchase  
7 identified that you could, I guess, incinerate --  
8 also incinerate sharp -- I think the implication was  
9 that you could also incinerate sharps. Is that  
10 correct?

11 A. I don't know if he ever indicated that.  
12 Perhaps it was implied.

13 Q. Let me put it this way, then: If we have  
14 the ability to burn medical waste at the H-POWER  
15 facility, would we need a plasma arc facility to  
16 burn medical waste?

17 A. No, we won't.

18 Q. Would it be cost effective to have a  
19 plasma arc facility in Hawaii to just burn sharps?

20 A. No, it would not.

21 Q. Mr. Chipchase also discussed with you at  
22 length whether H-POWER can burn materials such as  
23 biosolids, class B biosolids that have no BTU value.

24 A. Correct.

25 Q. I'm going to ask you that question again.

1 As H-POWER is currently permitted, can H-POWER burn  
2 biosolids that have no BTU value?

3 A. As it's currently permitted, it's a  
4 waste-to-energy facility, and as a waste-to-energy  
5 facility, that means that what you put in should be  
6 producing energy, as opposed to just pure  
7 incineration.

8 Q. So there's an option of -- does DOH also  
9 permit incinerators?

10 A. I do believe they -- I do believe they  
11 permit incinerators, yes.

12 Q. But there's a distinction pursuant to DOH  
13 permitting between waste-to-energy facilities and  
14 incinerators?

15 A. Yes. And actually, one of the proposals  
16 some time ago for Sand Island was an on-site  
17 incinerator, and the issue or the problem with that  
18 was that the regulations have gotten so strict on  
19 sludge incineration that it just did not make it  
20 feasible cost wise.

21 Q. But for H-POWER as a waste-to-energy  
22 facility, can H-POWER take biosolids that have no  
23 BTU value?

24 A. As it is currently permitted as a  
25 waste-to-energy facility, I would have to say no.

1 Q. Let me point to Exhibit K247. We were  
2 looking at section 15.3.4. This is the excerpt that  
3 was authored by Dr. Sharma. And Mr. Chipchase read  
4 the paragraph that begins with, The current trend  
5 for disposal, but he stopped at the word pathogens.  
6 Continuing on, could you read the paragraph after  
7 that, starting with Disadvantages?

8 A. Which paragraph would that be?

9 Q. That would be on page 613 of 247. This  
10 would be the last full paragraph on the page.

11 A. Okay.

12 Q. The last full sentence.

13 A. The last full sentence of the paragraph?

14 Q. Yes.

15 A. Where it says, New options?

16 Q. Beginning with Disadvantages. Let me  
17 direct you to it. Do you see number seven that says  
18 uncontaminated sharps?

19 A. Yes, I do.

20 Q. Then the next paragraph begins: All  
21 medical waste?

22 A. Yes.

23 Q. Let's start with that. Could you read  
24 that sentence?

25 A. Sure. All medical wastes represent a

1 small fraction of the total waste stream and it is  
2 estimated that it is a maximum of about two percent.  
3 It is important to understand --

4 Q. Okay. That's all. Just the first  
5 sentence.

6 Based on that representation of about two  
7 percent of the total waste stream, would it be  
8 reasonable for the City to invest in plasma arc for  
9 a two percent waste stream?

10 A. I don't think you could economically  
11 justify it.

12 Q. Now, back to the same document, and the  
13 second paragraph starts with, The current trend.

14 A. Yes.

15 Q. Could you read the next full sentence?

16 A. Following that first sentence?

17 Q. Yes.

18 A. Okay. Disadvantages of incineration  
19 include the potential air pollution risk from  
20 dioxins or the disposal of hazardous ash wastes.

21 Q. Okay. And the next one?

22 A. New options for disposal of medical  
23 infectious waste are still being explored as well as  
24 some other technologies, including irradiation,  
25 microwaving, autoclaving and mechanical or chemical



1 disinfection.

2 Q. So Dr. Sharma recognizes alternatives to  
3 incineration?

4 A. Yes, he does.

5 Q. Mr. Chipchase spoke with you at length  
6 about the City's goals and the justification for  
7 asking for the deletion of the July 31st, 2012  
8 deadline. Other than sludge, even if we were able  
9 to divert or burn all sludge from the landfill, are  
10 there still wastes that have to go to the landfill?

11 A. There are still those special wastes that  
12 you have to deal with, a lot of the special waste  
13 that I had earlier identified.

14 Q. Conceivably, could that be the 23 percent  
15 that San Francisco is also dealing with that has to  
16 go to the landfill?

17 A. I'm sure it's part of it, as well as  
18 recycling residual, because even recycling products  
19 have a residual that must be dealt with.

20 Q. Currently, there is also a need for a  
21 landfill for what we talked about earlier, disaster  
22 debris; is that correct?

23 A. That is correct.

24 Q. And other emergency contingencies; is that  
25 correct?

1 A. That is correct.

2 Q. And also as a back-up on a permit  
3 condition, as a matter of fact, for H-POWER?

4 A. That is correct.

5 Q. So besides sludge without BTU value,  
6 special waste with no alternative disposal, disaster  
7 debris, emergency contingencies and as a back-up for  
8 H-POWER, do you think that's enough justification  
9 for the continuation of the landfill?

10 A. I think it is a justification for a  
11 landfill, because it certainly addresses the big  
12 issue of public health and the environment.

13 Q. Could you elaborate on that in terms of  
14 public health and the environment?

15 A. Well, everything we do in the department  
16 focuses around public health and the environment,  
17 and they're co-mingled; you can't separate the two.  
18 We're dealing -- and I hate to say this, but our  
19 department tends to be reactive to what the public  
20 gives us. It's not always a good picture of what we  
21 have to deal with from the public, but we do.

22 And it is our responsibility to make sure  
23 that we handle this waste in such a way that we do  
24 not impact or endanger the public's health and that  
25 we do not create a negative impact on the

1 environment. So this entire what I call the  
2 triangle of solid waste management has to do with  
3 our waste-to-energy, our recycling and the landfill.  
4 If you lose that landfill, the other two basically  
5 collapse and it has a significant impact on the  
6 public's health and the environment.

7 Q. So you would agree with Mr. Miller's  
8 statement -- and I'll read from his transcript on  
9 page 99 -- that he does not believe that Honolulu  
10 can do without a landfill?

11 A. I agree with that statement.

12 Q. So in that context, how do you justify or  
13 what do you envision the future holds for ENV in  
14 terms of future waste diversion?

15 A. Well, I would like to continue looking at  
16 opportunities to, you know, get that last bit of  
17 high-hanging fruit, and you know, what some people  
18 call that last mile, that we can get the last drop  
19 of water out of the sponge, realizing we're still  
20 going to have the sponge left over. So this is the  
21 direction we want to go in. So we have a lot of  
22 programs that we're looking at and that we  
23 constantly are either piloting or considering a  
24 pilot in the future.

25 Q. Currently, the existing contracts that the

1 City has already entered into would conceivably take  
2 care of sludge or divert sludge from the landfill;  
3 is that correct?

4 A. That's the intent, that's correct.

5 Q. Except for what's coming from the Waianae  
6 treatment plant?

7 A. Waianae treatment plant.

8 Q. Wastewater treatment?

9 A. Right.

10 Q. So Mr. Steinberger, we've established the  
11 need for a landfill and we've established that the  
12 ENV is committed to further diversion of the waste  
13 from the landfill.

14 How do you justify the current request not  
15 -- to essentially delete the deadline? Why would  
16 the deadline restrict ENV's ability to protect human  
17 health and the environment?

18 A. Well, simply put, when you have put a gate  
19 across your ability to function to where you can't  
20 get in, so the gate's open and then it closes, and  
21 now you're still dealing with wastes that are coming  
22 from the public that you have to responsibly  
23 address, it's just not a responsible way to handle  
24 an environmental program, and it's certainly not  
25 responsible to the public.

1 Q. Are there conceivably situations that you  
2 envision could occur, based on the history of the  
3 landfill, that essentially wouldn't be anticipated  
4 and that could potentially create a threat to human  
5 health and the environment?

6 A. Yes. I mean, we certainly did not  
7 anticipate this storm that occurred last January of  
8 2011, so -- and there's other issues, and I think  
9 I've already elaborated on them, as to whether or  
10 not -- say what if HER does not continue to be able  
11 to function and now we're left with having to deal  
12 with a lot of biosolids accumulating at the  
13 treatment plant? I mean, what do you do with it if  
14 you don't have the time or an unconstrained ability  
15 to develop some other program like we had --

16 It took us from 1994 to get to where we  
17 are now in biosolids. What happens if that door  
18 closes and now we have to go through a whole new  
19 process again to find out, okay, what are we going  
20 to do with the biosolids, what are we going to do  
21 with screenings, which has still not been addressed?  
22 What is the Navy going to do? What is the Army  
23 going to do, which has not been addressed? Right  
24 now, they are very dependent on the landfill. So  
25 these are issues that are out there that we have to

1 deal with.

2 MS. VIOLA: Thank you.

3 CHAIRWOMAN PINGREE: Commissioners,  
4 questions?

5 MR. CHIPCHASE: We don't end with cross?

6 CHAIRWOMAN PINGREE: You don't end with  
7 cross.

8 MR. CHIPCHASE: I thought we always ended  
9 with cross.

10 CHAIRWOMAN PINGREE: We haven't. No, we  
11 haven't.

12 MR. CHIPCHASE: Okay.

13 CHAIRWOMAN PINGREE: Do you have any  
14 questions? Commissioners, questions?

15 MS. DAWSON: I have one quick question.

16

17 E X A M I N A T I O N

18 BY MS. DAWSON:

19 Q. You answered, and I'm not sure I  
20 understood your answer, about shipping some of our  
21 waste to the mainland. It sounded like a federal  
22 agency was against it.

23 A. In the end, actually, it was more of a  
24 Native American group --

25 Q. I read the letter, yes.

1           A.       -- that really objected to it, and because  
2       there was treaties that were established between the  
3       Yakima Nation and the U.S. federal government, the  
4       USDA, the United States Department of Agriculture,  
5       decided that it was not in the best interest of the  
6       federal government to violate that treaty. That's  
7       kind of the bottom line.

8           Q.       I read the letter and the Yakima were very  
9       definitive about not wanting to accept waste from  
10      Hawaii.

11          A.       Yes. And that case is still ongoing, by  
12      the way.

13          Q.       What's that?

14          A.       It's still ongoing. They have not  
15      withdrawn.

16          Q.       Is that the only option that we explored  
17      in terms of shipping our waste? Was it only to the  
18      Yakima?

19          A.       Well, it was done by a request for  
20      proposals, and which people would come in -- this is  
21      in accordance with the state procurement code.  
22      Whoever came in with the low price, according to the  
23      state procurement code, would be awarded the  
24      contract as long as they were a responsive bidder.

25                    We had quite a few discussions as to

1 whether this group was a responsive bidder or not,  
2 but in the end, when it was appealed before the  
3 DCCA, we ended up having to award the contract to  
4 this particular group. Again, they undercut the  
5 amount that they could actually do the project with,  
6 and then, of course, all of the other issues -- they  
7 had not done all of the consultations with the  
8 Yakima Nation that they needed to do. They  
9 misrepresented to the USDA that there was actually a  
10 dock up at the Roosevelt Landfill when there was no  
11 dock at the landfill. So there was a whole host of  
12 issues that came down from this group. And of  
13 course the biggest one was the Yakima Nation going  
14 to court to put stops to the whole project.

15 Q. Do I understand that there were no other  
16 responsive bidders?

17 A. Well, there was two other bidders, and one  
18 of those bidders was around \$160 a ton to ship and  
19 the other was around \$170 a ton to ship. The City  
20 Council made it very clear that anything over \$100  
21 would not be funded. So our hands were kind of tied  
22 in that respect. So that's why -- that bidder came  
23 in at \$99 and 90 some odd cents, just under \$100 a  
24 ton.

25 MS. DAWSON: Okay. Thank you.



1 CHAIRWOMAN PINGREE: Any other questions?  
2 I have just a simple question. Excuse my  
3 naivete.  
4

5 E X A M I N A T I O N

6 BY CHAIRWOMAN PINGREE:

7 Q. Is there a way to upgrade biosolids? In  
8 other words, you have a class B. Can you upgrade it  
9 to a class A?

10 A. Yes, you can. And actually, everything  
11 that comes out of -- the process for dealing with  
12 biosolids is what we call anaerobic digestion.  
13 That's the most popular means. So what comes out of  
14 -- the final product out of this digester is a class  
15 B product. So the way that you upgrade it to a  
16 class A is you elevate the temperature.

17 Now, the way we do that at Sand Island is  
18 when it comes out of the digester, it goes to a  
19 series of centrifuge, where the water is removed to  
20 the maximum extent it can. Then it goes back to a  
21 large drum dryer, where it is rolled and it takes  
22 the rest of the moisture out, and the temperature is  
23 very high in that dryer, so that does your pathogen  
24 kill. That's why it comes out as an exceptional  
25 quality class A.

1           The other means that you can do this is by  
2   composting, where by allowing going into an  
3   anaerobic condition, you can actually elevate the  
4   temperature significantly within your piles of  
5   compost and once you get above that 130, 140 degrees  
6   for so many days, you now have achieved your class A  
7   biosolid.

8           Now, for the pelletizing operation at Sand  
9   Island, Department of Health only requires periodic  
10   testing, and I think it's on an annual basis. For  
11   composting, it's every pile before it is released  
12   must be tested for pathogen count. So it's a little  
13   bit more intensive as far as going with the  
14   composting as opposed to with the pelletizing.

15         Q.     If you had the ability to upgrade, could  
16   you then not divert more or have secondary uses for  
17   the other product?

18         A.     The answer is yes. But it's very  
19   expensive to go the pelletizing route, and so we  
20   chose to do that at Sand Island because there was  
21   adequate volume coming into the digesters which  
22   produced an adequate amount of waste gas, which is  
23   mostly methane, in order to heat that dryer.

24           Now, at the other plants, because the  
25   waste stream is considerably less than Sand Island,

1 you're not producing the same quantity and quality  
2 of methane. So, you know, you would probably have  
3 to find some other source of energy in order to dry  
4 that biosolid to elevate it up to a class A. And  
5 then, of course, to pelletize it, you have to have  
6 this type of a drum dryer that rolls everything into  
7 place.

8 CHAIRWOMAN PINGREE: Thank you.

9

10 E X A M I N A T I O N

11 BY MR. ANDERSON:

12 Q. You mentioned the third boiler is going to  
13 be completed by late fall, I believe?

14 A. We should be completely operational by --  
15 we better be completely operational by November.

16 Q. Are there any other foreseeable hang-ups;  
17 power purchase agreements with HECO or any other  
18 entitlement issues that still have to clear?

19 A. You know, on the power purchase agreement,  
20 that's about to go to the PUC. I expect it to be  
21 taken over there soon, because as of this past week,  
22 we've been pretty much wrapping up the last little  
23 details in the power purchase agreement.

24 CHAIRWOMAN PINGREE: Any others?

25 Thank you very much.

1 THE WITNESS: Thank you all for your time.  
2 I know it's on your time and I appreciate the  
3 opportunity to come in here and go through this  
4 process and certainly explain to you what our  
5 program is. So thank you very much.

6 CHAIRWOMAN PINGREE: Before we finish  
7 today, what I'd like to do is talk a little bit  
8 about how we're going to move on the agenda. As you  
9 know, our next meeting is on April 17th, and we  
10 start at 9:00 again in the morning. That's Tuesday,  
11 next week Tuesday.

12 What I'm assuming is that's our last day.  
13 We're going to have two -- from what I understand,  
14 two rebuttal witnesses.

15 MR. CHIPCHASE: Chair, I guess I would  
16 like to know, does ENV rest?

17 MS. VIOLA: We rest, and reserve the right  
18 for rebuttal based on what comes out from your  
19 witnesses' testimony. But we anticipate that we've  
20 rested. We don't think we're going to be calling  
21 additional witnesses. We want to reserve the right,  
22 but I anticipate --

23 CHAIRWOMAN PINGREE: That's fine. You can  
24 reserve the right. But bring the witness on  
25 Tuesday. Okay?

1 MS. VIOLA: I also want to object -- I  
2 mean, I renew the objection I stated at the  
3 beginning of the proceeding today that I would  
4 assert that especially if the witnesses that Mr.  
5 Chipchase is going to bring in to testify regarding  
6 the clean-up, that's repetitive, it's redundant.  
7 That's basically one provision that would be  
8 precluded from an administrative proceeding.

9 The City did not present rebuttal  
10 testimony saying they didn't conduct -- that KOCA  
11 didn't conduct clean-up. What the City was  
12 rebutting was the comment made by Mr. Hospodar that  
13 the City didn't do anything, and unless Mr.  
14 Chipchase's witness is going to say that he knows  
15 for a fact that the City didn't do anything, then  
16 that testimony, I would think, would be purely  
17 repetitive.

18 CHAIRWOMAN PINGREE: What is the scope of  
19 this witness?

20 MR. CHIPCHASE: Well, this particular  
21 witness actually is going to address the value and  
22 scope of the City and Waste Management's efforts to  
23 clean up following the spill. It is directly on  
24 that topic. So it's definitely not redundant.

25 But just on the nature of the objection --

1 over the five witnesses that we heard in rebuttal,  
2 most of them referred to Mr. Miller's testimony and  
3 to his reports, all of which were on file with ENV  
4 since December. So to now say, Well, you can't do  
5 it because it's redundant -- I mean, we could have  
6 had all of this done in January in terms of what ENV  
7 has by and large responded to.

8 So I'm not asking for the same level of  
9 indulgence. I'm just saying my intent truly is to  
10 offer rebuttal testimony that responds to oral  
11 testimony that we received, and that's actually in  
12 contrast to what we've gotten mostly so far.

13 CHAIRWOMAN PINGREE: I'm going to allow  
14 it. I'd like to hear it.

15 MR. SANDISON: If I could --

16 MR. CHIPCHASE: Actually, I'll make an  
17 exception for Ian's witness. If that was what you  
18 were going to say, your witness was responsive to  
19 oral testimony.

20 MR. SANDISON: Correct. And I'd like to  
21 briefly address the pleadings that Mr. Chipchase  
22 filed this week. He said he'll be bringing -- he'll  
23 be calling Dwight Miller to rebut our rebuttal  
24 testimony regarding the acceptance of shredder  
25 residue at H-POWER. Because I don't know what

1 that's going to be, would you make an offer of proof  
2 specifically as to what Mr. Miller will be  
3 testifying to?

4 MR. CHIPCHASE: I don't mind. Chair,  
5 there was testimony from Mr. Zelenka that the clean  
6 air permit prohibited H-POWER from taking ASR. It  
7 doesn't. So we'll introduce that as an exhibit.

8 But I mean really that is a very small  
9 point for us. That ASR is non-putrescible and it  
10 could have alternative uses beyond burning. It's  
11 simply to point out that the permit itself doesn't  
12 say that. It will take five minutes.

13 MS. VIOLA: Could we have an offer of  
14 proof as to the other matters that Mr. Miller would  
15 be testifying to?

16 MR. CHIPCHASE: Well, I mean I've laid out  
17 more now than ENV did or Schnitzer did on its  
18 rebuttal witnesses, and I've been happy to do that,  
19 but that's got to stop at some point. I've laid out  
20 all the topics and actually filed a rebuttal witness  
21 list. I'll do the same thing in response to today's  
22 testimony to the extent that any of their topics  
23 have increased as a result of today's testimony, but  
24 I don't want to have to make an offer of proof for  
25 every single one beyond what I've already done,

1 which is more than ENV did.

2 MS. VIOLA: I object to that  
3 characterization. The fact that he filed a rebuttal  
4 document that provides the name and three general  
5 statements regarding the bases for rebuttal is not  
6 more than what the City has produced, in the sense  
7 that we've provided a list with the specific  
8 statements that we were going to rebut. So that is  
9 a mischaracterization of what the City has done. We  
10 provided the general categories as well as the  
11 specific references to statements that Miller made  
12 that we essentially intended to rebut.

13 CHAIRWOMAN PINGREE: Excuse me. Mr.  
14 Chipchase?

15 MR. CHIPCHASE: Yes, Chair.

16 CHAIRWOMAN PINGREE: As far as Dwight  
17 Miller, you have listed three topics of discussion.  
18 Are you going to go beyond those topics that you've  
19 listed?

20 MR. CHIPCHASE: I won't go beyond any of  
21 those topics for testimony we've already received.  
22 To be honest, Chair, I just have to look at my notes  
23 from today and see whether there's anything here  
24 that Mr. Miller or another witness needs to rebut,  
25 and if there is, I will file a new list.



1           But in all circumstances, I don't  
2 anticipate having testimony that takes us beyond the  
3 morning. To be honest with you, my goal is to  
4 finish mid-morning, so that we may close before  
5 noon. That's my goal. I will try to stick to it.  
6 If I expand that list, it will be done tomorrow.

7           CHAIRWOMAN PINGREE: That list, of course,  
8 will be shared.

9           MR. CHIPCHASE: Of course.

10          CHAIRWOMAN PINGREE: Council?

11          MS. DAWSON: Does that mean we'll have  
12 summation in the afternoon?

13          MR. CHIPCHASE: My goal would actually be  
14 to sum up during the day. I mean, based on that  
15 list, I anticipate being done by 10:30 in the  
16 morning and then being able to sum up between 10:30  
17 and noon.

18                 If I look back in my notes today and I  
19 feel like there are one or two or three, or whatever  
20 it is, topics that need to be addressed, then it  
21 could take up more of the morning and we would sum  
22 up that afternoon. But my intent is not at all to  
23 have any testimony or summation beyond Tuesday.

24          MS. VIOLA: If Mr. Chipchase is going to  
25 supplement his list of rebuttal witnesses, then I

1 would ask again for offers of proof and reserve the  
2 right to call rebuttal witnesses on behalf of the  
3 City.

4 CHAIRWOMAN PINGREE: It's my understanding  
5 that he's not --

6 MS. VIOLA: He said he may be, upon  
7 reviewing his notes, if he feels it's needed.

8 CHAIRWOMAN PINGREE: Increase the scope.

9 MS. VIOLA: Increase the number of the  
10 witnesses.

11 CHAIRWOMAN PINGREE: I thought it was the  
12 scope.

13 MR. CHIPCHASE: It's possible the number  
14 of witnesses, Chair. Sitting here right this  
15 moment, I can't say that there's no one else that I  
16 would feel is appropriate to address some of the  
17 testimony we heard today. But I can assure you that  
18 it's not lengthy testimony, even if it's an extra  
19 witness.

20 CHAIRWOMAN PINGREE: And your concern was,  
21 Dana?

22 MS. VIOLA: My concern is if he brings in  
23 information that I feel or the City feels needs to  
24 be rebutted or contested by the City, that we  
25 reserve the right to call an additional witness to

1       rebut that.

2                   CHAIRWOMAN PINGREE:   That's okay.   That's  
3       fine.

4                   We just need that done on Tuesday.

5                   MR. SANDISON:   Based on Mr. Chipchase's  
6       representation, that we will only be discussing the  
7       air permit, Schnitzer will not have the need to call  
8       any additional rebuttal.

9                   MS. DAWSON:   Are we limiting the time for  
10      summation?

11                  CHAIRWOMAN PINGREE:   Yes.   I'll talk about  
12      that in a minute.

13                  MS. VIOLA:   If Mr. Chipchase -- based on  
14      his representation, if he will file the supplemental  
15      rebuttal statement tomorrow, then essentially the  
16      City will respond immediately.

17                  CHAIRWOMAN PINGREE:   Immediately.  
18      Tomorrow is Thursday, so I expect a response on  
19      Thursday.

20                  MS. VIOLA:   Okay.

21                  CHAIRWOMAN PINGREE:   All right.   This is  
22      what we're looking at as far as the schedule:   We  
23      know we're meeting on Tuesday, April 17th.   At that  
24      time, I'm anticipating that we're going to hear all  
25      the witnesses.   Then we're going to finish up with

1 your closing arguments.

2 Just as a reminder, both the City --  
3 excuse me -- both the ENV and Schnitzer will have a  
4 half an hour combined for your closing argument and  
5 a half an hour for KOCA. So again, that's April  
6 17th.

7 Thereafter, this is what we anticipate:

8 MS. VIOLA: Chair, I'm wondering why would  
9 the City be disadvantaged by a reduction in time  
10 based on Schnitzer's intervention?

11 CHAIRWOMAN PINGREE: I think that's  
12 written -- I read it in the rules, and I'm sorry I  
13 can't quote the rule right away.

14 MS. VIOLA: Okay.

15 CHAIRWOMAN PINGREE: Counsel will locate  
16 it. Rule 2-71, number one, Oral arguments. Not  
17 more than one half hour each for opening and for  
18 closing arguments by any party shall be allowed  
19 without special leave of the commission. If more  
20 than one party is participating on the side of the  
21 proceeding, the parties so concerned shall allocate  
22 the time for argument between themselves. That's  
23 2-71, number one. So it's a half an hour.

24 MR. SANDISON: In view of -- the City has  
25 a much more complex argument than Schnitzer does and

1 we have a very small portion. Might you make an  
2 exception to this to, say, allow Schnitzer a  
3 separate ten minutes and we will definitely not  
4 greatly prolong the proceeding, but it wouldn't  
5 detract from the City's argument?

6 CHAIRWOMAN PINGREE: What do you think?  
7 Do you have any objection?

8 MR. CHIPCHASE: I have no objection.

9 CHAIRWOMAN PINGREE: So ten minutes for  
10 Schnitzer. Thirty minutes for ENV. Thirty minutes  
11 for KOCA.

12 MS. VIOLA: Thank you.

13 CHAIRWOMAN PINGREE: Now, the other dates  
14 thereafter, I need for you to write these down.

15 April 27, 2012, simultaneous submittal of  
16 proposed findings of fact, conclusions of law,  
17 decision and order by the parties.

18 On May 9th, 2012, simultaneous submittal  
19 of response to other parties' proposed findings,  
20 conclusions of law, decision and order by parties.

21 On May 14th, 2012, we're going to try our  
22 very best, as of what I know right now,  
23 deliberations and decision. That's May 14th.

24 So the next time we'll see each other is  
25 April 17th, Tuesday.

1 May I have a motion to adjourn?

2 MS. DAWSON: So moved.

3 MR. YOUNG: Second.

4 CHAIRWOMAN PINGREE: At 9:00, I'm sorry,  
5 on April 17th. Motion to adjourn?

6 MS. DAWSON: So moved.

7 MR. YOUNG: Second.

8 (Hearing adjourned at 4:00 p.m.)

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STATE OF HAWAII )  
 ) SS.  
CITY AND COUNTY OF HONOLULU )

I, SUE M. FLINT, Notary Public, State of Hawaii, do hereby certify:

That on April 11, 2012, at 9:00 a.m., the foregoing contested case hearing was taken down by me in machine shorthand and was thereafter reduced to typewriting under my supervision;

That the foregoing represents to the best of my ability, a true and correct transcript of the proceedings had in the foregoing matter.

I further certify that I am not an attorney for any of the parties hereto, nor in any way concerned with the cause.

This 223-page transcript dated April 11, 2012, was subscribed and sworn to before me this 15th day of April, 2012, in Honolulu, Hawaii.

*Sue M. Flint*

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SUE M. FLINT, RPR, CSR 274  
Notary Public, State of Hawaii  
My Commission Exp: July 23, 2015

