BEFORE THE ENVIRONMENTAL APPEALS BOARD UNITED STATES ENVIRONMENTAL PROTECTION AGENCY STATES WASHINGTON, D.C.

In re:

City & County of Honolulu Sand Island Wastewater Treatment Plant : NPDES Honouliuli Wastewater Treatment Plant : Appeal No.

: 09-01

NPDES Permit Nos. HI0020117 & HI0020877

Washington, D.C.

Thursday, November 19, 2009

The following pages constitute the oral arguments before the Environmental Appeals Board, held pursuant to notice, at the U.S. Environmental Protection Agency, 1201 Constitution Avenue, Northwest, Washington, D.C., before Erick M. Thacker, RPR, of Capital Reporting Company, a Notary Public in and for the District of Columbia, commencing at 3:00 p.m.

	Treating			
	2			4
١.	ADDEADANGES	١,	CONTENTS	
	APPEARANCES	1 2	CONTENTS	
$\begin{vmatrix} 2 \\ 3 \end{vmatrix}$	On behalf of the Environmental Appeals Board:	~	ORAL ARGUMENT	PAGE
4	Judge Edward E. Reich Judge Charles J. Sheehan	3		
5	Judge Kathie A. Stein		By Mr. Salmons	5
6	Judge Katine A. Stem	4		_
7	On behalf of the U.S. Environmental Protection Agency:	_	By Ms. Leith	5
8	SUZETTE E. LEITH, ESQUIRE	5	REBUTTAL ARGUMENT	
9	Assistant Regional Counsel, Region 9	7	By Mr. Salmons	6
10	U.S. Environmental Protection Agency	8	•	
11	75 Hawthorne Street	9		
12	San Francisco, California 94105-3901	10		
13	(415) 972-3884	11		
14	- and -	12 13		
15	STEPHEN J. SWEENEY, ESQUIRE	14		
16	Office of General Counsel	15		
17	U.S. Environmental Protection Agency	16		
18	1200 Pennsylvania Avenue, Northwest	17		
19	Mail Code 2355A	18 19		
20	Washington, D.C. 20460	20		
21	(202) 564-5491	21		
22		22		
	3			5
				J
1	On behalf of the City & County of Honolulu:	1	PROCEEDING	S
2	DAVID B. SALMONS, ESQUIRE	2	MS. DURR: The Environ	
3	ROBERT V. ZENER, ESQUIRE	3	for the United States Environme	
4	Bingham McCutchen, LLP	4	is now in session for oral argum	-
5	2020 K Street, Northwest	5	County of Honolulu, Sand Islan	
6	Washington, D.C. 20006	6	Plant, Honouliuli Wastewater T	
7	(202) 373-6000	7	Nos. HI0020117 and HI002087	7, NDPES Appeal No.
8	AV GO DE NAVEL III	_	09-01.	L Markingani Gilat
	ALSO PRESENT:	i	Honorable Judges Edward Reic	n, Nathie Stein, Charles
10	Eurika Durr, Clerk of the Board	9	Sheehan presiding.	l call phonog and
11	* * * * *	10	Will you please turn off al	r cen phones and
12	* * * *	11	recording devices?	orning council Con
13		13	JUDGE STEIN: Good m	-
14		14	everyone hear me? If counsel c name for the record and the part	_
15		15	MR. SALMONS: Thank	
16 17		16	David Salmons. I represent the	
18		17	Honolulu. This is Bob Zener.	only und country of
19		18	MS. LEITH: I'm Suzette	Leith for the EPA
20		19	Region 9. Can you hear me?	Domi tot alle the A
21		20	JUDGE STEIN: Actually	, not very well
i i		21	MS. LEITH: I'm Suzette	-
122				
22		22	9, Office of Regional Counsel, i	_

With me is Stephen Sweeney from the Office of General Counsel.

JUDGE STEIN: I believe that the city and county of Honolulu is going to proceed first, and if I understand correctly, you have 45 minutes for argument, and are you reserving any time for rebuttal?

MR. SALMONS: Yes, Your Honor. We'd like to reserve ten minutes for rebuttal. Thank you, Your Honors. May it please the Board? I'm David Salmons, and I will address the issues of mixing zones, the application of Sections 301(h)(9) and (h)(2), the region's refusal to consider disinfection to address the bacteria exceedances at Honouliuli.

My colleague, Mr. Zener, will address specific issues related to chlordane, Whole Effluent Toxicity, bacteria, dieldrin, and the motion to supplement the record.

If it pleases the board, I'd like to begin
with the issues of mixing zones. And to put that issue

in context, it's important to recall that for 20 years, the region had permitted the plants at issue in this

22 case to operate without secondary treatment. And in

1 me -- light extinction coefficient, turbidity and 2 dissolved oxygen.

And then it identified specific parameters
that needed to be met at the ZOM, and there it includes

5 total nitrogen, ammonium nitrogen, and some others.

6 What that leaves are what are the toxic substances.

7 And for those, the permit contains a specific dilution

8 factor that is to be used since those are not actually

9 measured at an area in the ambient waters; instead are

10 measurements that are taken at the end of the pipe --

11 JUDGE SHEEHAN: You didn't challenge those 12 limits, did you, those findings?

MR. SALMONS: Well, I do think we did with regard to this issue of whether the Zone of Initial

15 Dilution or the state approved mixing zone is relevant.

16 And I think it's important to remember -- and EPA's own

17 technical standards document bears this out -- that

when calculating the dilution factor for things like chlordane and dieldrin and WET testing, you start v

19 chlordane and dieldrin and WET testing, you start with20 some conception of what the mixing zone is, because the

21 goal is for that dilution factor to give you a result

22 that mirrors what would be a measurement at the edge of

7

13

14

1

9

8

1988, it specifically stated in its tentative decisions

2 granting the waivers that the state's EPA approved

3 mixing zone or ZOM, rather than the federal mixing zone

4 or ZID, quote, takes precedence, close quote, in

5 determining compliance with all state water quality

6 standards, except for biochemical oxygen depletion and

total suspended solids, which are the specific

8 pollutants for which the secondary treatment waiver is

9 being sought.10 The reg

13

3

The region suddenly changed that long-standing view in its tentative decisions in these cases. But its current position is both contrary to law and arbitrary and capricious.

JUDGE STEIN: Am I correct however in
 understanding that the ZOMs that were approved were
 approved for only a subset of pollutants?

MR. SALMONS: Well, what I would say, Your Honor, is that the permit that I believe you're referring to, if you take, for example, the Honouliuli permit -- this is at H-12-1172 in the record -- it identifies specific parameters that had to be met at

22 the ZID, and it only included light efficient -- excuse

the mixing zone, and so, to the extent that the

2 dilution factors that were actually applied by the

3 region in this case for those toxic substances differs

4 from the permit, and they do in each instance, their

5 differences in part, we believe, reflect this

6 distinction between using the mixing zone that's

approved by EPA by the state in using the ZID. And if

8 you look at the record, Your Honors, with regard to,

9 for example, chlordane and dieldrin and WET testing in

10 both Honouliuli and Sand Island final decisions, you'll

11 see that the region specifically says that the dilution

12 factor that they used was intended to measure those

13 pollutants at the ZID or to reflect the measure that

14 would --

JUDGE STEIN: Is this argument now that you're giving to us addressed in your briefs, or is this yet a new argument that you're making as to why some of these other pollutants may have ZOM-like characteristics?

MR. SALMONS: Well, Your Honor, I don't think it's a new argument. I think what I'm attempting to do is respond to Your Honor's question as to whether our

10 12

ZID/ZOM arguments that are clearly presented we

were made below and are made in our briefs, whether

those apply to only those pollutants that are

identified in the permit as being measured at the ZOM,

or if they also would incorporate these other toxic

substances. We think it's clear from the record that

that -- if there's a legal error, we're correct about

that, that the region was required to use the state EPA

9 approved mixing zone.

10

11

13

14

15

16

17

18

19

21

22

13

15

16

17

JUDGE SHEEHAN: But I think the region challenges your assertion that the ZID argument for the toxics was made in your comments below. Can you point out in the record where you did make the ZID argument in the comments, your comments?

MR. SALMONS: Certainly, Your Honor, and I think this goes to an issue that the region is very aggressive about, in our view, and that is reading our comments very narrowly as to -- we would submit trying to avoid meaningful review of what is fundamentally a significant policy change that they have adopted in the decisions in this case.

What happened was, once the tentative decision

dramatically changed their position. And so what they

said was, you know, you made an unjustified change, and

it quotes the language from 1988 that says that the --

quote, the ZOM would take precedence in determining

compliance with state water quality standards and that

the Zone of Initial Dilution would apply for parameters

only for which the applicant is requesting a variance, 7

8 i.e., BOD and TSS.

9 So the position that the region had previously 10 taken, which we believe is the position that's required 11 under the statute and the regulations, is that you have 12 to use the state approved mixing zone, and the only 13 possible exception is for the pollutants for which you 14 are seeking a modified permit, and that, in this case, 15 is BOD and suspended solids.

16 JUDGE REICH: Could I go back to the dilution 17 factor issue? I share a little bit of what I think was 18 Judge Stein's puzzlement about the argument, because 19 having read your briefs, I don't remember seeing it 20 being argued that way. I mean, clearly, you argued the

21 issue about which mixing zone was appropriate, but I

don't remember seeing this argument about the dilution 22

13

11

10

11

came down and indicated that there was -- there were

going to be violations and that the waiver application

was going to be denied based on measurements at the

in response to that in our comments, and this is the --

if the Court wants to follow along, this is at H-2-24

and -25 -- and what we said was that the tentative

decision reflects a change without explanation or

justification, a deviation from what the position was

taken in 1988, and then it quotes the position from

10 1988 which we believe is reflected in an appropriate 11 interpretation of the regulations --

12

JUDGE SHEEHAN: It doesn't sound like you're arguing the regulatory scheme, though, there; you're just making a general assertion of error without arguing the law?

MR. SALMONS: I'm sorry. I'm not sure I understand.

18 JUDGE SHEEHAN: It doesn't sound like you're 19 arguing on the basis of regulations there.

20 MR. SALMONS: Well, I think that there was 21 still some question at this point, I believe, in the minds of Honolulu exactly why the region had so

factor. Where in the permit is the dilution factor specified, using either one?

3 MR. SALMONS: I don't have the responsive 4 permit handy, and I apologize for that.

5 JUDGE REICH: Are you saying that if one looked at the dilution factor and knew what they were 6

looking at, that it is clearer that that dilution 7

factor has to correspond to measuring at the edge of

the ZOM rather than the ZID, that there's no question

that that's what was intended by the dilution factor?

MR. SALMONS: Well, Your Honor, if one were

12 to look -- if one were to look at the final decisions

13 in these cases -- and we can just go through them. I'm

14 happy to do that, and we can start with Honouliuli.

15 And if we look, for example, at chlordane -- this is

page 63 of the final decision for Honouliuli -- it says 16

17 that when the long-term efficient dilution value of 412

18 to 1 is applied to these three sample results, the 19

concentration of chlordane in the receiving water at 20 the ZID is calculated to be -- and then it provides the

21 specific calculation -- and that 412 to 1 is a

different dilution factor than was specified in the

14 16 1 permit. argued. What we have argued, Your Honor, is that when 2 And so our point is that to the extent that undertaking that (h)(9) analysis and asking the 3 reflects an attempt to mirror the dilution at the ZID question, will the discharge comply with the federal as opposed to the state-approved ZOM, which we would 4 criteria, that it doesn't make any sense to disregard 5 submit are inherent in the dilution factors that are the state mixing zone which was approved by EPA contained in the permit, that our argument about why 6 precisely with that criteria in mind. 7 the ZOM controls applies to those pollutants as well. JUDGE STEIN: But how do you square that with 7 And I would respectfully disagree that that's not clear 8 the language of the regulation in 125.62, which clearly from our brief. I believe our brief was clear that our makes reference to, "At the time the modification 10 arguments with regard to ZID/ZOM apply to all of the 10 becomes effective, the applicant's outfall and diffuser 11 pollutants in this case with the exception of bacteria. 11 must be located and designed to provide adequate 12 JUDGE REICH: I think that was clear. What I 12 initial dilution, dispersion, and transport of think was not clear was that one could determine that 13 13 wastewater such that the discharge does not exceed at 14 there was, in fact, a mixing zone for pollutants other 14 and beyond the Zone of Initial Dilution?" than the ones specifically listed by looking at the 15 I see nothing in that regulation that gives 16 dilution factor. I don't believe that was clear. 16 room for the argument that you're making, and when I 17 MR. SALMONS: Well, and I guess what I would 17 look at the 1994 preamble, when commentors suggested a say, Your Honor, is that if the Court agrees, if the 18 broader interpretation, EPA in the 1994 preamble spoke 19 board agrees with our arguments with regard to the 19 that issue. So the difficulty I'm having with your state mixing zone and that the state mixing zone is the argument appropriate mixing zone -- the EPA approved state 20 is understanding how it can be squared with the 22 mixing zone -- is the appropriate mixing zone to use in language in the regulation and the '94 preamble. 15 17 the 301(h)(9) analysis. Well, then the question happy to address that. Our position -- and we think becomes, you know, how much of the region's this is the best reading of the regulation -- is that 3 determinations are -- have to be reconsidered in light 3 when -- when the regulation 125.62 makes reference to 4 of that legal error? all applicable water quality standards that that 5 JUDGE REICH: In your view, since you reference to applicable is essentially defined in the 5 referenced (h)(9), as I read your argument, does (h)(9) 6 6 prior section of the regulation in 125.61, which said, 7 apply to anything beyond the pollutants for which a 7 "There must exist a water quality standard or standards 8 waiver was requested? applicable to the pollutant(s) for which a section 9 MR. SALMONS: I think it does, Your Honor. 9 301(h) modified permit is requested" -- and it What I would say is that (h)(9) requires more broadly a 10 identifies BOD, suspended solids, and pH -predictive judgment on the part of the region and the 11 JUDGE REICH: Now I'm really confused. EPA as to whether -- if the variance is permitted -- as 12 JUDGE SHEEHAN: So BOD and TSS set the to whether the effluent that would be discharged at bounds that time would generally be in compliance with the 13 for where measurement occurs -act's criteria. And the region agrees and I think 14 MR. SALMONS: Well -everyone concedes that the state water quality 16 15 JUDGE SHEEHAN: -- in all -- for all 17 standards which have been approved by EPA -pollutants? 16 18 JUDGE REICH: So that's not limited to BOD 17 MR. SALMONS: Well, I think that the 19 and TSS in this case? 18 requirement -- just to be clear, it's in Section .61 of 20 MR. SALMONS: I don't think that -- I don't 19 the regulations -- it doesn't say where those

20

21

22

measurements are to be taken. .62 of the regulations,

that provision says that the applicable water quality

standards have to be satisfied at the ZID, and we're

21

think that the (h)(9) analysis is limited only to BOD.

At least, that's certainly not a position we have

18 20 1 not disputing that in this case. What we are saying is statement that makes reference to the ZID. (a)(1)(i) that applicable there doesn't mean all water quality says all applicable water quality standards, so those standards. It's a reference to the standards that are have to be satisfied at the ZID. We read those as a applicable to the pollutants for which the waiver is reference to the water quality standards that have just sought, so the rest are satisfied at the ZOM. 5 been defined in .61. 6 JUDGE REICH: Then if you can help me kind of 6 JUDGE SHEEHAN: But didn't EPA in its '91 put this all together, because my understanding --7 rulemaking tie 125.62(a)(1) to 301(h)(9), all of it? correct me if you don't think it's right -- is that 8 MR. SALMONS: Well, I think it's difficult to 125.62(a), in the language you're looking at, basically understand exactly what occurred at that time, to be 10 is the language that's intended to implement (h)(9). 10 honest with you. And to be clear, this is not a model 11 MR. SALMONS: Well, no, Your Honor, and I 11 of clarity. I will concede that. We're trying to do 12 think that is an important point. That is clearly not 12 the best we can with this, but I think given the correct. The language we're talking about that makes 13 history of it, it's hard to read applicable as being 14 reference to the satisfaction of all applicable water 14 anything other than a reference to .61, which has been quality standards at the ZID, that language goes back 15 defined as applicable. 16 for a decade or more before (h)(9) was even in the 16 And what they did after (h)(9) was added to 17 statute. 17 the statute, they amended it to say, if you do not have 18 And if the Court looks, for example, at the approved state water quality standards, then you have 18 19 1986 version of the regulations -- now, there's a 19 to apply -- you have to satisfy the federal criteria at 20 difference in numbering. It's .60 and 61 instead of 61 20 the ZID --21 and 62, but what you'll find, Your Honor, is exactly 21 JUDGE REICH: All right. So -this same language that makes reference to all 22 MR. SALMONS: -- and we agreed with that. 19 21 applicable water quality standards being satisfied at JUDGE STEIN: So (a)(ii) there, if I the ZID when (h)(9) was not even in the statute, and I 2 understand what you're saying now, was, in fact, the 3 don't think it's disputed -language added to address (h)(9)? 4 JUDGE REICH: But --4 MR. SALMONS: Yes, Your Honor. 5 MR. SALMONS: -- how the EPA construed 5 JUDGE REICH: Okay. That uses the word 6 that --6 "applicable," right? 7 JUDGE REICH: So if I want to find in the 7 MR. SALMONS: It does. Yes, Your Honor. regulations where (h)(9) is implemented, where would I 8 JUDGE REICH: It does? And you indicated 9 earlier that in your view, (h)(9) is not limited to TSS 10 MR. SALMONS: Well, what the -- what the EPA and BOD, so presumably, the word "applicable" there has 10 11 did after (h)(9) was added to the statute in terms of 11 broader meaning, so why should we read it in (i) right amendments to the regulations is in .62. It adds -- it 12 above it more narrowly? 13 added (ii) to (a)(1). So it added the reference that 13 MR. SALMONS: Well --14 where there is not a state approved water quality 14 JUDGE REICH: It's the same word. 15 standard, you have to comply with the federal criteria. 15 MR. SALMONS: Well, with respect, I think 16 and that carries back up to the reference to the ZID --16 that's because .61 defines it for you, and it defines at the ZID. And again we do not dispute --17 17 what are the applicable water quality standards that 18 JUDGE REICH: So you're saying that A -- when 18 have to be met at the ZID. Historically, that is 19 you talk about two, are you talking about (ii) or --19 exactly the language that was here before (h)(9) was 20 MR. SALMONS: That's correct. So if -- for 20

21

22

reference to all --

21

example, in 40 CFR 125.62, (A) refers to physical

characteristics of the discharge. (a)(1) is the

even added to the statute, and everybody understood the

JUDGE REICH: But being that you argue in

22 your brief that if language is amended then you need to

kind of look at the language after it's amended and assume that, you know, what was there before doesn't necessarily carry forward, and it seems to me that if 5 you're looking for something that helps define what applicable is in (i), then it is probably at least or

more logical to look at what's in (ii), then to go back and look at 61, which is a different section all

9 together. 10

11

15

16

17

1

7

8

10

11

MR. SALMONS: Well, I think the history of it suggests that they're more connected than that, Your 12 Honor. And I guess I would say that, again, this is not a model of regulatory clarity, and if you step back and ask yourself, what is the point of (h)(9), the point of (h)(9) is to insure that there's going to be general compliance with the federal criteria.

And the region has not come forward with any suggestion -- and with respect, I don't think it's possible that the state approved mixing zone satisfies the criteria of the statute. That's precisely why it

18 19 20 21 was approved, and so the question then becomes, why 22 would you ignore that and why would you adopt a

This is a quote from the technical manual.

It says that the Clean Water Act allows mixing 3 zones at the discretion of the state. EPA recommends

that states have a definitive statement in their

standards on whether or not mixing zones are allowed, which was done here. Where mixing zone provisions are

24

25

part of the state standards, the state should describe

the procedures for defining mixing zones, which is

again, during the water quality standard approval

10 process, there's a procedure that's set forth for

11 defining the mixing zones in the --

12 JUDGE STEIN: How do you square that with the 13 language in the '94 preamble, which specifically

14 refused to adopt the position that state standards were

15 going to trump the ZID? There's specific language.

16 There's a specific discussion in comments. EPA 17 responds to those comments, takes a position that

18 appears to me to be different than the position you're

19 arguing, and as far as I know, that issue wasn't 20

challenged. 21

MR. SALMONS: Well, with respect, I don't think that language is that clear, and I think there

23

22

7

different --

JUDGE SHEEHAN: But the ZOM was only adopted

for certain pollutants, not for all pollutants, right 4

5 MR. SALMONS: Well --6

JUDGE SHEEHAN: -- pollutant by pollutant permit?

MR. SALMONS: -- for all the pollutants that are at issue here, we think the ZOM was a factor in defining whether there's an exceedance or not for those --

12 JUDGE SHEEHAN: The ZOM is still set permit 13 by permit, right?

14 MR. SALMONS: Well, there -- I'm sorry, I 15 couldn't hear you.

16 JUDGE SHEEHAN: Under Hawaii standards, the 17 ZOM is set permit by permit?

18 MR. SALMONS: The procedure -- and this is again consistent with the technical support document

20 that the region relies on -- it specifies that as a 21 general matter with -- along with the state water

quality standards -- in fact, this is at S-2-4161.

are other statements around that time that cut the

other way. And then, again, I think that this comes

down to a question of what is at best, less than fully

clear regulatory language that is the result of

amendments over time as the act has changed. I think,

6 at a minimum, the region's position is that the term

"applicable" has changed over time, and it --

8 JUDGE STEIN: Maybe the region made an error in the earlier permit. I'm not sure that the language

10 in the regulation has changed, and when I look at -- I

11 think it's 125.62 through -- I don't know if it's

12 (a)(3) or (3) -- where it says that the requirements of 13 paragraphs (a)(1) and (2) apply in addition to and do

14 not waive or substitute for the requirements in 125.61.

15 MR. SALMONS: Well, that's right, Your Honor, 16 but that is -- I mean, just again, to remind the Court,

17 romanette (ii), that's a reference to when there is no 18

state approved water quality standards. It's not a 19 reference --

JUDGE STEIN: What about (a)(1)?

21 MR. SALMONS: Well, (a)(1) is when there's a 22 reference to where there are state approved water

26

28

quality standards, and it says you have to comply with

the applicable ones, you have to satisfy it at the ZID,

and we're discussing what applicable means. I do

think -- just again, I would urge the Court if -- to

5 the extent that there's some uncertainty with regard to

this regulatory language, I think the important thing

7 to do is to go back to the statute and to ask the

question, why would Congress want to disregard state

approved mixing zones when they have been carefully

10 designed by -- EPA's own technical document says this --

11 through a multistep process that takes into account

12 precisely these same types of economic -- excuse me --

13 environmental concerns.

14

6

7

16

17

18

19

20

JUDGE STEIN: But as I read the legislative 15 history, what Congress said was that we are going to 16 allow for a waiver of secondary treatment in certain 17 carefully defined circumstances, and that there was

legislative history, if I recall -- and I can't recall 19

the specific piece of history -- that talked about that 20 this should not be interpreted expansively.

21 And if you're going to allow a waiver from 22 requirements that otherwise apply to all facilities or this when it added the 301(h) process -- the entire

thrust is for the encouragement of, the development of,

and deference to EPA approved state water quality

standards. And the whole point of the waiver process

of 301(h) is to recognize that there are potentially

crushing cost burdens on jurisdictions along the

coastal areas, where the issue can be adequately

addressed through dilution.

And Congress certainly was aware that mixing 10 zones are an inherent part of state water quality standards. Everybody agrees. The region has made this very clear that the reference to the federal criteria in (h)(9) includes reliance on EPA approved water quality standards, and with respect, I see no reason to distinguish between state approved mixing zones and state approved water quality standards. They've been

17 through essentially the same approval process.

18 JUDGE STEIN: But as I understand the Hawaii 19 mixing zone concept, it's not -- it's site specific,

20 and it is pollutant specific, and it is limited in

21 time, so it's not that if you get a mixing zone for

permit one, you're entitled to permit -- a mixing zone

27

13

14

15

16

waiver that you might have to comply with potentially

more stringent criteria if you're going to be allowed facilities under all circumstances, and I'm not sure out of a major requirement? So I just don't see

11

12

13

14

15

16

that's an accurate reflection of what the Hawaii mixing

Congress speaking to that issue. 5 I see the statutory language, which is

consistent with the ZID. I see more explanation in the

all POTWs, isn't it rational that in order to obtain a

ninety -- you know -- four regulations as to what was

intended by the ZID, and I don't see -- I think the

language of the reg as to what the ZID is is pretty

11 clear. I mean, I understand you've got an argument 12 about what is applicable and what's not applicable. I

have difficulty understanding some of the references to

14 metals and fecal coliform bacteria in the regs if your

15 definition of applicable applies.

> MR. SALMONS: Your Honor, if I may start to address some of those concerns, and there are, I think several in Your Honor's question there, and I would start where I think Your Honor has started, with the statute, and I would make the following two points.

21 The first is that the entire thrust of the

22 Clean Water Act -- and Congress certainly understood

in permit two. The way you're describing the mixing

29

zone it sounds like, you know, this applies to all

zone --

6 MR. SALMONS: Well, there are two steps to 7 the process, Your Honor, and I think, as you

understand. The first is the approval of the concept

9 of the mixing zone in the first instance through the

10 water quality standard approval process, and that's --

JUDGE SHEEHAN: It's case by case. That's

Judge Stein's point.

MR. SALMONS: First, there is the approval of the water quality standards that include the procedures for the mixing zone, then permit by permit --

JUDGE STEIN: But the procedures or the possibility of a mixing zone --

17 18 MR. SALMONS: But they set forth the standard 19 for measuring the features of it and how the process

20 for determining it --

21 JUDGE SHEEHAN: If they're saying that there

22 should be a ZOM.

30 32 1 MR. SALMONS: Well, that's part of it, yes. that there are, if you will, two types of mixing zones. But here's what I would take away from that, Your There are state approved mixing zones, and then there Honors, and I think that is important. And that is. are federal mixing zones, and the mixing zone should that if the region has concerns about the adequacy or follow the water quality standards. appropriateness of a state mixing zone, it is fully 5 JUDGE SHEEHAN: How about the fact that able to address any concerns that it's not sufficiently 125.58 (dd) defines ZID as the region of initial 6 protective of environmental concerns through the 7 mixing? approval process of the water quality standard in the 8 MR. SALMONS: I'm sorry? 9 first instance, and then through the specific permit 9 JUDGE SHEEHAN: It seems like initial mixing 10 approval processes. There's no reason to give the 10 and ZID are the same thing. region now a third opportunity to come in and to say 11 MR. SALMONS: No, I don't think that's true, 12 that the state mixing zone is inadequate and to adopt 12 and I don't think there's any suggestion in the what is essentially a hybrid federal standard. 13 13 statutory text or its history --14 JUDGE SHEEHAN: Well, can the state change 14 JUDGE SHEEHAN: Well, I'm quoting 58(dd), 15 its mind -- can the feds change their minds, if they 15 125. 16 want? 16 MR. SALMONS: I'm sorry. This is the 17 MR. SALMONS: I'm sorry. I couldn't hear 17 regulation you're talking about? 18 you. 18 JUDGE SHEEHAN: Yes, right. 19 JUDGE SHEEHAN: Can the region change its 19 MR. SALMONS: Well, yes, the regulation 20 mind over time? 20 defines the ZID --21 MR. SALMONS: Well, there are procedures to 21 JUDGE SHEEHAN: As the region of initial 22 do that through the water quality standard approval 22 mixing, back to (h)(9) arguably. 31 33 process and through the permitting process. It hasn't MR. SALMONS: Well, I mean, again, I don't -done so here, and there's been no suggestion in any of 2 I think that that's not the proper reading. 3 the pleadings that Hawaii's mixing zone is inadequate 3 JUDGE SHEEHAN: Well, there seems to be a to protect environmental concerns or is inadequate to 4 correlation between (h)(9) and the ZID. 5 fulfill the criteria of the Clean Water Act. And that, 5 MR. SALMONS: Well, to be sure, there are 6 after all, everybody agrees, is the whole point of 6 times when the ZID is the proper mixing zone under (h)(9). The question as to (h)(9) is, will the 7 (h)(9). We're not saying that you can never use the discharge of effluent generally be in compliance with 8 ZID when you're applying an (h)(9) analysis -federal criteria? 9 JUDGE REICH: No, but I think --10 JUDGE REICH: (h)(9) uses the term "after 10 MR. SALMONS: -- when there is no state 11 initial mixing." 11 mixing zone, but the question is, what do you do when 12 MR. SALMONS: Yes, Your Honor. 12 there is an EPA approved state mixing zone? The same 13 JUDGE REICH: What is your understanding of 13 would be true with regard to --14 the word "initial" in the term "initial mixing." 14 JUDGE STEIN: And how do you --15 MR. SALMONS: Well, we believe that is 15 MR. SALMONS: I'm sorry. 16 intentionally broad to include both state approved 16 JUDGE STEIN: How do you -- if you're right, 17 mixing zones when the mixing zone -- excuse me -- when 17 then how do you read the language in 125.62(a) broadly the state water quality standards are in existence and 18 enough to encompass the state mixing zone concept? My a federal mixing zone when they are not. And so we 19 problem is that your interpretation doesn't appear to 20 think Congress used the term "initial mixing" as 20 fit within the scope of 125.62(a) if we reject your 21 opposed to, you know, the Zone of Initial Dilution or 21 interpretation of the definition of applicable. something like that precisely because it recognized 22 And I understand how it fits if we accept that

34 36 applicable only applies to the pollutants for which you they had the same interpretation of the regulation that 2 are seeking a waiver, but if we were to reject that we do, and we had always had our waiver applications point of view, how does your interpretation square with 3 granted. 125.62(a)? 4 I'm not sure how we could conceivably have had 5 MR. SALMONS: I'm -- I apologize. I'm having either standing or a ripe claim at that time to a hard time following what part of my argument you're challenge their adoption of that regulatory language on knocking out that I have to respond to, and I don't --7 the theory that they might someday change their I just didn't follow -interpretation of it and it would come back to hurt us JUDGE STEIN: Let's assume, hypothetically, 9 20 years later. I mean, that's just -- to me, is just 10 that if the board were to conclude that applicable 10 11 water quality standards --11 JUDGE SHEEHAN: Well, arguing the way it's 12 MR. SALMONS: Right. interpreted is different from whether it's valid or 12 13 JUDGE STEIN: -- means basically all water 13 14 quality standards. 14 MR. SALMONS: Well, that -- but if --15 MR. SALMONS: So you agree that if you were 15 JUDGE SHEEHAN: If -- you were speaking of to hold that --16 regulation invalidity. 17 JUDGE STEIN: (inaudible). 17 MR. SALMONS: Well, right. As I understood 18 MR. SALMONS: Right. You'd have to satisfy 18 Your Honor's question, they raised -- this statutory 19 all water quality -- all applicable --19 provision that says you have to challenge certain 20 JUDGE STEIN: Right. In other words, in 20 regulatory language within 120 days within its 21 looking at the ZID language in 125.62, we're not just 21 adoption, and we didn't do that. If we're going to looking at two pollutants. make the argument that the regulations here are 35 37 1 MR. SALMONS: Right. invalid, and my only point is, we couldn't possibly 2 JUDGE STEIN: We're looking at a broader set. have brought that challenge at the time. We weren't 3 So how is it that your argument about the ZOM can fit 3 injured by the adoption of that regulatory language. into the language about the ZID in 125.62(a) -- does 4 They would have come to court and said, no, we 5 your argument rise or fall on our acceptance of your 5 interpret it the same way you do, and you haven't 6 argument about applicable? been -- you know, there's no likelihood it's going to 7 MR. SALMONS: Well, I guess I would -- we be applied against you in some negative way. I think argue in two steps. One, we argue that applicable that that just shows that that can't possibly be the ought not to be read the way the region does. right reading of that statutory provision. I would Historically, there's a problem with that since 10 like to say, if I could, a few words about applicable was there before (h)(9) was. We think that 11 11 disinfection, because --12 it's a reference to 61. 12 JUDGE REICH: Before you do, I have one last 13 If you were to disagree with that, then we 13 question about how to read 125.62. If I understood 14 would argue that the regulation is inconsistent with 14 what you had said earlier, then applicable under (ii)

15

16

17

18

19

20

21

22

is broader than applicable under (i), and yet, the

of initial dilution is -- seems to be a predicate for

anything that falls into (ii) as well as (i) cannot

exceed at or beyond the Zone of Initial Dilution.

language that Judge Stein read from earlier that talks

both of those. There's a colon, and there's a one and

a two, so I don't understand why that does not say that

about discharge does not exceed at or beyond the zone

15

16

17

18

19

(h)(9), and if you were to disagree with that, then

JUDGE SHEEHAN: Wasn't it the time to

MR. SALMONS: Well, you know, that's another

challenge that long ago if the regulation is invalid?

of what I would refer to as an aggressive assertion of

waiver on the part of the region. At the time they say

we would have been required to bring that challenge,

obviously, on that issue, we would not prevail.

11

12

13

14

15

16

38 MR. SALMONS: Well, I generally agree with Your Honor on the structure of that provision. Where I would differ, I think, from what was the premise of your question, is that, again, we read (a)(1) to be a reference to the applicable water quality standard --5 6 JUDGE REICH: I understand. 7 MR. SALMONS: (inaudible) -- at the (a)(2) --8 JUDGE REICH: -- more broadly. 9 MR. SALMONS: -- we read that as a reference 10 to federal criteria when there is no state approved 11 water quality standards. That's the only thing that (a)(2) covers, and so it says you have to satisfy the

13 following things at the ZID, applicable water quality standards, which we should say is .61 water quality standards, and federal criteria if there is no state 15

16 approved standard. And again, we would agree with 17 that. 18

19

8

9

11

13

So I don't think we have a problem with the plain terms of the regulation. I can understand that this is not clear language and that reasonable minds might disagree. I would then urge the Court to go back

21 to the statutory purpose and the general structure of

And if there is a problem with the mixing zone or some result that's not agreeable in the application of it through permitting processes and others, the region can come up with a tailored fix. It could say,

40

41

okay, you need to treat -- you know, more pretreatment for this pollutant or something like that. Here, it's

an on-off trigger for potentially hundreds of millions or billons of dollars cost, and I think that makes it a

very blunt instrument to change the standard, so --10 JUDGE STEIN: I have a couple questions

before you address your last point. MR. SALMONS: Yes.

JUDGE STEIN: Is there anything in the record that reflects whether or not Hawaii provided any kind of state certification in conjunction with this waiver or application for this particular waiver?

17 MR. SALMONS: Whether there was a state 18 certification, Your Honor? I'm not sure the answer. I 19 believe the answer to that -- and I will do my best to

20 look at the record when I sit down, Your Honor. I

21 believe the answer to that is that that would have been

22 the next step if the region had issued a tentative

39

(h)(9) and to understand that state standards, EPA approved state standards including mixing zones, are exactly what are encouraged here, and that there are other mechanisms for the region to deal with mixing zones that may be problematic, and that this isn't necessary to do so in an (h)(9) analysis where the real question is, are you generally compliant with federal criteria?

And then lastly -- and I think this goes to a point that Your Honor made Judge Stein with regard to -- with regard to the fact that you're seeking a 12 waiver of otherwise generally applicable requirements, and I guess I view that the other way. It seems to me 14 that what Congress was clearly concerned with here were 15 potentially devastating and, at least at a minimum,

16 very significant costs that would be incurred by

17 multiple jurisdictions, and when -- precisely because

18 of their ability to mix and dilute the primary treated 19 effluent, there ought to be a lessening of the burden.

20 In those circumstances, it doesn't make sense, we would

21 argue, to have a more strict standard than would apply

22 generally to permit compliance and the like.

decision that was favorable to the process. I believe

it's at that point that that's done, but I'm not

3 positive about that, so I will check.

4 JUDGE STEIN: My second question is with 5 regard to 125.62(a)(4), I believe, that talks about 6 evaluating compliance with (a)(1)(i), and (a)(2) based 7 on conditions reflecting maximum periods -- reflecting periods of maximum stratification and during other 9 periods when discharge characteristics, water quality, 10 biological seasons or oceanographic conditions indicate 11 more critical situations may exist.

Could you explain how that particular provision of the regulation squares with the arguments you're making to us?

MR. SALMONS: Well, if I'm understanding you 16 correctly, Your Honor, I think it would apply -- that that provision would apply when you're dealing with 18 the -- what we refer to as the applicable water quality standards, i.e., BOD and suspended solids, and it would apply when you're applying the federal criteria when there's no state water quality standard that has been 22 approved, but it wouldn't apply otherwise, at least not

12

13

14

15

17

19

20

42 44 by its terms. thing I would say about that -- the critical thing I 2 JUDGE STEIN: And what does it mean? What do would say about that is that the region takes the you think this regulation means? position that because the application for the 301(h) 4 MR. SALMONS: I'm not entirely sure, Your waiver did not specifically mention disinfection as an 5 Honor. I'm not trying to (inaudible) -alternative, that it, therefore, was relieved of any JUDGE STEIN: Okay. Well, I have a chance to 6 obligation to consider it. 7 ask you --And I think the most -- the most clear and 8 MR. SALMONS: -- it's not a regulation that 8 straight forward reason as to why that's incorrect is 9 we have focused on, I think, to any great length, nor that 301(h)(9), as everyone agrees, requires a 10 has the region in any great length. predictive judgment as to what the water quality 10 11 JUDGE REICH: Yeah, just trying to nail this 11 standard will be under a waiver if it's granted in the 12 down in my mind -- if for 125.62(i), we look for 12 future, and the permit that was already in place for guidance as to what applicable means by looking back to Honouliuli specifically required the implementation of 13 125.61; for (ii), where do you look for guidances as to disinfection. If the results of the Sand Island trial 14 15 what the word applicable there means? 15 were positive and if --MR. SALMONS: Well, I think you don't really 16 16 JUDGE SHEEHAN: What about the .62 17 have to, Your Honor, because I think there, the only 17 requirement that the applicant give a demonstration of relevant question is whether there are EPA approved 18 why it would work? water quality standards, and I think that'll usually be 19 19 MR. SALMONS: Well, that's what Sand Island 20 clear. And it says that if there are -- excuse me --20 21 it says that if there are not EPA approved water 21 JUDGE SHEEHAN: But it's a different quality standards --22 facility. 45 43 JUDGE REICH: I'm just trying to understand MR. SALMONS: It is a different facility, but 1 the structure of the regulation --2 the permit -- and just to be clear, this is -- this is 3 MR. SALMONS: Right. 3 pages 63 and -- excuse me. I'm reading the wrong 4 JUDGE REICH: -- whether you think it's thing. This is from H1-189, which is the section of relevant here or not. the permit for Honouliuli. It says that "If the 6 JUDGE SHEEHAN: I had a question about 6 results of the Sand Island monitoring program indicate 7 whether the measurement would occur at the ZID or the that disinfection of the Sand Island Wastewater ZOM under (ii). Treatment Plant effluent shall be required, 9 MR. SALMONS: Well, our reading of (ii), Your 9 disinfection of the Honouliuli Wastewater Treatment Honor, would yield the following result, which is that 10 Plant shall also be required." 11 if there is a state approved water quality standard. 11 I gave you the wrong cite, Your Honor. That's 12 (ii) doesn't apply, and you would measure that at the 12 at H12-1228 of the record. So if the permit for 13 ZOM. If there is not, the federal standard would 13 Honouliuli very clearly stated that if the results of 14 apply, and you would measure that at the federal mixing 14 the Sand Island monitoring program are positive, 15 zone or the ZID. So we would generally -- our reading 15 indicating the disinfection is going to be required at 16 of this harmonizes in that way pretty consistently that Sand Island -- and, you know, this presupposes that you 16 17 if -- that the mixing zone follows this standard. If 17 have -- otherwise have bacteria violations, then you 18 it's state, then it's state. If it's federal, it's 18 must include disinfection at Honouliuli. And so for federal. 19 19 that reason alone, without even getting into whether it 20 I would like to just say a few words 20 was required to amend the application or not, in making 21 about disinfection, because we view that as a very 21 that predictive judgment, we submit it's arbitrary and

22

capricious to ignore what is otherwise a clear permit

important part of this appeal, and I think the critical

46 48 requirement. set forth specific criteria that a discharger had to 2 If there are exceedances -- and we have arguments meet in order to get a variance. They have to meet all as to why the bacteria exceedances, in fact, don't exist, these criteria. 4 In other words, unless the region finds that 4 if there are exceedances, we're already required given the applicant meets all these criteria, there's just no the positive result at Sand Island to include authority for the EPA to grant a 301(h) variance. disinfection, and it's arbitrary and capricious to Here, the region analyzed mounds of data, and they ignore that fact in making the 301(h) waiver found that there was multiple reasons why the variance determination. If there are no further questions, Your couldn't be granted under 301(h)(9). Both discharges Honors --10 failed to meet water quality standards for toxicity, 10 JUDGE STEIN: I'm going to ask one final for chlordane, for dieldrin, for ammonia, and also that 11 11 question. the Honouliuli discharge failed to meet standards for 12 MR. SALMONS: Yes. 13 bacteria, and under 301(h)(2), that both discharges 13 JUDGE STEIN: 125.61 refers to applicable 14 could interfere with the attainment of water quality --14 water quality standards. 125.62(a)(1) refers to all 15 protective of aquatic life and recreation. So unless applicable water quality standards. What in your mind 16 this board finds that all those regions were in error, is the difference between applicable and all 17 the applicants still do not qualify for a variance, and 17 applicable? 18 the two decisions should be upheld. 18 MR. SALMONS: I don't see a difference 19 Turning, then -- I guess I will start with the 19 between them, and I would point Your Honor to the fact 20 ZID and the ZOM, which is where most of the briefs are. 20 that the same language -- as I understand it, the same 21 Although, as a preliminary, there is one overriding 21 language was in the regulations up until 1986 when 22 practical issue which Your Honors discussed, and that (h)(9) wasn't in the statute, and it still had the same 47 49 reference, and it was clearly understood as being a is, from a practical standpoint, the legal issues may reference to the water quality standards that are not even affect the final results here. One thing that identified in .61 as being applicable. 3 we didn't get into before during City & County of 4 And again, I would just emphasize that this is Honolulu's argument is the fact that for ammonia and not a construction of the regulation that we have for bacteria at Honouliuli -- ammonia at both plants ginned up out of whole cloth. This is, in fact, how the 6 and bacteria at Honouliuli, the record shows region interpreted their regulations for a very long 7 exceedances at the ZOM as well as at the ZID, so even 8 time. Thank you, Your Honors. 8 if the ZOM controlled for those, they still don't meet 9 JUDGE STEIN: I think, at this point, you're 9 water quality standards. 10 out of time. 10 JUDGE STEIN: How do you respond to the 11 MR. SALMONS: That's fine. 11 argument that CCH made, which is that was not the basis 12 JUDGE STEIN: If you have any issues you need 12 for the region's decision? So if, in fact, we were to 13 covered, you can cover it on rebuttal. 13 ground any decision by this board on the fact that 14 MR. SALMONS: Very well. 14 there were exceedances at the ZOM as well, that's 15 MS. LEITH: Good afternoon. I'm Suzette 15 inconsistent with the record in this case. 16 Leith with the Region 9 Office of Regional Counsel. 16 MS. LEITH: The decisions -- the final There's a lot to talk about before I get into the ZID 17 decisions do clearly indicate that water quality and ZOM, and maybe, if we have time, some of the other 18 standards were not met at the ZOM, so I think under 19 issues. I want to make one general comment about 19 there's a casino case, I think that counsel for CCH 20 301(h) -- 301(h) in general and why this proceeding is 20 cited, under that one, even if the case doesn't say 21 different from the typical permit proceeding that comes 21 specifically, this is an alternative ground, if that 22 here, and that is that in 301(h), Congress specifically can be fairly discerned from the decision, then it can

50

1 be upheld. And here, for example, the ZOM violations at Sand Island -- all the violations, frankly, were at the ZOM because there wasn't monitoring at the ZID, and so it was clear that there were exceedances at the ZOM and --

JUDGE STEIN: Was that the basis for your decision, the basis for the region's decision?

MS. LEITH: The basis for the region's decision was that water quality standards would not be attained. The region did emphasize the ZID, because that's what the regulations say and that's what we were analyzing, so --

JUDGE SHEEHAN: To put a slightly finer point on that, the water quality standards were to be attained at the ZID or at the ZOM?

16 MS. LEITH: The main thing the region was 17 analyzing was, could water quality standards be 18 attained at the ZID. What the region also put in the 19 decisions was, moreover, they're not even attained at

20 the ZOM. And so, for example, CCH has raised the

21 issue, should the public be able to comment on that,

22 and our answer to that is that no, they shouldn't,

MS. LEITH: Because the decision did specifically say standards were not met at the ZOM,

even though the main thing -- you're right. The main

52

53

thing the region looked at is were they made -- met at

the ZID. There were also statements they were not met

at the ZOM, and if the standards aren't met at the ZOM, then the waiver can't be granted. And to that extent,

the region did make the technical decision that the

exceedances at the ZOM were sufficient to come to a

10 conclusion that the standards could not be met.

11 The other issue for the other pollutants --12 the chlordane, dieldrin, toxicity was discussed a

little bit, and there was one question about the

dilution factor and where does that come from. It's

discussed at length in the final decisions how it was

calculated. I have the cite for the Honouliuli

17 decision. It's document H.1.2, pages H0123 discusses

18 how initial dilution is calculated, and it's things

19 like the depth of the outfall, the tides, the water

20 temperature, there are EPA approved models for how you

21 figure initial dilution. You don't start with the

physical ZID or ZOM and calculate back with the initial

51

3

10

11

12

13

14

15

16

17

18

19

20

21

because the tentative decisions clearly indicated all

2 these exceedances at the ZOM, that could have been

3 commented on.

5

6

7

8

9

10

11

12

13

15

4 JUDGE REICH: Is there any level of technical judgment that goes into looking at the data that

presumably showed exceedances at the ZOM in determining

whether that data is conclusive enough or strong enough to either grant or deny a waiver?

MS. LEITH: In general, is there technical 10 judgment used to decide whether standards are met with a variety of data? I think the answer to that is yes,

12 and I think CCH did point out, for example, for

13 dissolved oxygen at one of the treatment plants, there

14 were a couple of violations maybe ten years ago, but 15 it's been clean ever since, and the region did discount

16 those violations and find that that standard had been

17 met --

18 JUDGE REICH: So how do we know, even

19 there were allegedly, at least, violations at the ZOM that they would have been substantial enough to have

justified denial of the waiver if that's what you had

dilution numbers. You factor in these other critical

factors, and I think there was also a question about --

JUDGE REICH: But can I --

4 MS. LEITH: Yeah.

JUDGE REICH: If I understood what was said 6 earlier, it sounded to me like I was hearing that the 7 permit did, in fact, specify a dilution factor and the region, in fact, used a different dilution factor. Is

9 that an accurate or an inaccurate statement?

MS. LEITH: That is correct, and I'm not really prepared to say exactly why. I know part of the reason it was different was there was new data, for example, weather data. Part of the reason it was different is there are updated models, so there was a new model used. I'm pretty sure, but I can't cite chapter and verse on it, that it was not changing from back calculating from a ZOM to back calculating from a ZID. It was these other changes.

And as Your Honors pointed out, CCH has not challenged the model that was used, the numbers that EPA came up with, and the reasons for finding the

chlordane and dieldrin and effluent toxicity

54 56

violations, at least as to the ZID and the ZOM.

2 So with that, in terms of the practical

issues -- getting to the legal issues, we've discussed

125.62(a) at length. There was a question about, did EPA officially tie 125.62(a)(1) to 301(h)(9)? There's

a quotation in our brief on page 39 from the 1991

preamble to the proposed regs for 301(h) -- for the

changes to 301(h), which included 301(h)(9), and that

says "EPA interprets initial mixing to mean ZID

10 (proposal 125.62(a)(1))." There may even more clear

11 citations, but I couldn't find them in the few minutes

12 we had. So there is a tie to 125.62(a), and frankly,

13 if that doesn't interpret 301(h)(9), then I don't know

14 what does.

15

5

10

16

In terms of the word "applicable," I think that's been discussed a lot, frankly. If EPA when they

17 wrote the regs had wanted to say 125.62 only applies to

18 BOD and TSS, they would have said it -- they wouldn't

19 have buried it in the word "applicable." I looked for

20 definitions. Applicable is not a term of art. In

301(h)(9), it's used all over. Applicable pretreatment

22 requirements, applicable requirements of this section,

or the people who did the analysis, it just meant

standards that apply to this discharge, meaning it

doesn't include fresh water standards. It doesn't

include estuary standards or standards that might apply

to a bay over here rather than the ocean over here, and

6 that's kind of the easiest definition of applicable.

7 In terms of EPA's interpretation, I'll talk

8 about the inconsistencies with the region in a minute,

but the EPA headquarters -- EPA's national policy has

10 always interpreted (h)(9) to require meeting all water

11 quality standards at the ZID. Probably the clearest --12 the clearest sound bite on this is from the Amended

13 Technical Support Document, the ATSD, which came out

14 1994 along with the new regs.

15 This is essentially the bible for both

16 applicants and for regions who are analyzing these

17 decisions, and what it says specifically is compliance

18 with criteria and standards such as standards for

19 nutrients, toxic pollutants, and coliform bacteria

20 concentrations at the edge of the ZID is necessary, and

21 that's pretty clear. You don't just have to comply

22 with BOD and TSS. You have to comply with all these

57

55

11

applicable water quality standards. There is a definition at 125.58(cc) that says water quality

3 standard means applicable water quality standards which

4 have been approved.

There's also a definition of applicable water quality standards in the permit regs at 122.2. This

isn't 301(h), but 301(h) does require discharges to --

discharges to show that they can meet the permit regs,

too, and what that definition says is, basically,

applicable standards means all state standards to which

a discharge is subject under the Clean Water Act. 11 12

JUDGE STEIN: Do you know why, given that the term "applicable standards and limitations" was defined expressly in 122.2, why there is no comparable, you

15 know, definition that applies to this waiver process?

MS. LEITH: I don't know, other than --

17 JUDGE STEIN: Is there anything in the record that will tell us?

19 MS. LEITH: I never found anything. I assume

it's just -- it was just not used as a term of art. It just meant standards that apply. The way I interpreted

22 it when I first saw it and the way the permit writers

other things.

2 And looking through the preambles I believe

Judge Stein mentioned, the preambles to the '94 regs --

and I actually spent most of time looking back at the

preambles to the '91 proposed regs. There's an

emphasis on the full range of water quality standards.

There's discussion of toxic metals, carcinogens, all

this in terms of 125.62, so it's pretty clear that EPA

thought 125.62 means all standards that apply to --

10 that apply to this discharge.

JUDGE REICH: Is there anything that explains

12 the logic -- if I look at (h)(9) and I'm looking at a

13 pollutant for which there is clearly a mixing zone, and

14 it's not a pollutant for which secondary standards is

15 relevant, why should my judgment as to secondary

16 standards for a totally different pollutant depend on

17 their meeting a more restrictive level for that

18 pollutant than they presumably have to meet for normal

19 compliance purposes?

20 I mean, presumably, in approving a mixing

21 zone, EPA made a judgment that it was acceptable

22 environmentally to not really measure compliance until

58 60

1 you reached that point, so what is the logic of worrying about the environmental effects between the ZID and the ZOM for those pollutants? I just don't understand, you know, what the purpose of it is and how 5 that purpose has any relation to second -- waiver of secondary treatment or not. 7

MS. LEITH: Well, if the question is, why would there be a more stringent standard under a 301(h) analysis than there might be under --

JUDGE REICH: For the pollutants that have nothing to do with secondary treatment.

8

10

11

12

13

14

15

17

18

3

4

5

7

13

14

16

17

Water Act is all about.

MS. LEITH: The answer to that, I believe, is that when EPA promulgated its regs and EPA interpreted the Congressional intent that, yes, you can have a waiver of these specific technical standards, but you've got to make darn sure that water quality's protected, and in certain ways, the 301(h) regs are more stringent than your standard permit regs.

19 One of these is this requirement for the ZID, 20 and there's even a quote in our brief that I don't have 21 off the top of my head from one of the early preambles that in order to be protective, EPA's requiring that

JUDGE STEIN: Where would we find that? 2 MS. LEITH: It's in the -- it's in the Hawaii 3 mixing zone regulations, and I don't have the exact citation for where it is. It's about two-thirds of the way through it. It's kind of buried in the middle of a paragraph. The brief has the citation for where it's found. So I think that that answers the question of was the region doing anything inconsistent with state mixing zone provisions, and certainly in Hawaii, no, 10 because state mixing zone provisions recognize that under 301(h) conditions, the 301(h) regs are what 11 12 count. 13

JUDGE STEIN: You indicated that you were going to address the so-called flip in the region's position. Could you speak to that question?

15 MS. LEITH: Okay, couple of things. One is 16 17 that -- the Honouliuli tentative decision came out in 18 1988, and I think the permit came out in 1991. The 19 (h)(9) regs came into effect in 1994, so those were not 20 there when the Honouliuli decision was written. I will 21 acknowledge that the Sand Island decision also had a

61

22 mixing zone in it, and that was subsequent to that.

59

14

standards be met not just under the conditions dictated by the state, but under the most stringent conditions possible.

Another example is the requirement in 301 -- I mean 125.62, the one with the little I, about meeting water quality criteria where there is no corresponding state standard. That's something else you don't have to do in your standard permit, but that's something else that EPA when it promulgated its regs wanted to do to ensure that even if secondary treatment was not being required, water quality was still being protected, because that's essentially what the Clean

A couple other comments on the ZID and the ZOM. There was discussion of Hawaii's mixing zone provisions, and I just wanted to reiterate one thing we pointed out in our brief, that the Hawaii mixing zone provisions specifically say that a zone of mixing for plants performing primary treatment must comply with 301(h). In other words, you can't have a mixing zone

21 that's inconsistent with what would be calculated under 22 301(h), so --

The only answer I can give to that -- well, a couple

answers. One is, the region just didn't read the regs

3 and didn't read the TSD quite well enough, and what

really matters is what the regs say, what the national

policy is, and that's what the region followed in the

current decisions. 6

7 JUDGE SHEEHAN: Yes, and to focus on one of the '94 rulemakings, I understood it from your briefs, 9 the '94 rulemaking tracked what occurred in '91 and 10 even back as far as 1979, so as early as '79, the ZID was the line in the sand, so to speak, on these 11 12 matters, not only in '94.

13 MS. LEITH: It should have been. It wasn't 14 that clear. There was not a specific -- it wasn't that 15 clear that it was. It was also a different decision 16 that we were making, that the region was making back in 17 1988. There was -- there was less water quality data, 18 so there was a lot less analysis of water quality

19 standards, so to the extent that the region made the

20 wrong decision there, again, all I can say is, that's

21 true. It was the wrong decision. That's no reason why

the wrong decision should be made again now.

11

12

13

14

15

16

17

18

19

20

21

10

11

62 JUDGE SHEEHAN: Although, to take it even more recently in time or further forward in time, as I understand it, in both Honouliuli and Sand Island TDDs, the Region that the state quality water standards had to be met at the ZOM for secondary treated effluent -no qualification, and then in the TDDs (sic) for each facility, you said that the standards -- state standards had to be met for -- at the ZOM for certain discharges, so as late as the final actions here, you 10 seem to be thinking the ZOM for secondary treatment in the TDDs and then the reference to secondary treatment 11 with that qualification was gone by the time of the 12 13 final decision. 14 JUDGE STEIN: And I thought the thing that 15 you were referring to referred to the ZID, not being

met at the ZOM but at the ZID --

JUDGE SHEEHAN: ZOM... ZOM.

17

3

11

12

13

14

15

17

18 MS. LEITH: I'm not sure what you're 19 referring to. The two tentative decisions that were issued in 2007 were totally consistent with the final

decisions that came out in 2009. I may have been

talking about the 1988 tentative decision, but the 2007

dilution factor.

2 For bacteria, it was not mentioned at all, 3 because at the time the permits were issued, there were no bacteria standards in effect more than 1,000 feet from shore in Hawaii, so they -- there was frankly less 6 worrying about what the conditions were more than 7 1,000 feet from shore, which is where both the ZID and the ZOM would be. That changed in 2004 with the EPA promulgation of the Beach Act. The Beach Act rule 10 which set standards for those areas.

JUDGE SHEEHAN: I'm not sure if I understand the answer. The ZOM -- let me restate it -- if the ZOM were good enough for nutrients, et cetera, why wasn't it good enough for chlordane and dieldrin and the others? I thought that was Judge Stein's question. I'm not sure why that distinction between one set of pollutants versus another.

MS. LEITH: I don't know. I wasn't around then. It may be that what CCH asked for was the ZOM for particular pollutants. Under the Hawaii regs, it's the discharger that asks, and I think it was because of where the monitoring was and for the chlordane and

63

65

64

tentative decisions clearly said that standards had to 2 be met at the ZID.

Just a couple more points about the prior permits. The prior permits did have a zone of mixing for certain things, including nutrients, but as I think you all pointed out, the only standard that's at issue here that had a zone of mixing in the prior permit was ammonia, so to the extent the prior permits matter, it would only be for ammonia, and the next step there is -- and the ammonia standards were exceeded at the ZOM as well as at the ZID, so -- any more questions?

JUDGE STEIN: Why was the ZID specified for three pollutants in each of the two permits, but not for other pollutants?

MS. LEITH: For the pollutants that were measured in the effluent -- the ZID and the ZOM were actually used as monitoring stations. For pollutants that were measured in the effluent, such as chlordane and dieldrin, there was no ZID and there was no ZOM because what mattered was the initial dilution factor. And what those permits did, essentially, is the -- the 22 actual permit requirements took into effect the

dieldrin, the issue was initial dilution calculations 2 and modeling rather than a physical ZID or a ZOM, so --

3 JUDGE STEIN: With respect to the ZOM mixing 4 zone for ammonia nitrogen -- which as you mentioned,

both permits in the case have a ZOM mixing zone for

ammonia nitrogen and this occurred in the prior

permit -- should those explicit requirements override

the region's understanding of 301(h) with respect to

9 where you measure compliance?

> MS. LEITH: Compliance in the permit or --JUDGE STEIN: For the 301(h) purposes.

12 MS. LEITH: No. The permit requirements 13 should not control. What controls is what the law 14 says, what the reg says, and what the data say. For 15 example, there may be a permit -- well, for example,

16 with bacteria, there weren't violations of bacteria because they didn't have the standards in the permit.

17 18 And the fact that there may not have been permit

19 violations shouldn't control, looking forward, whether

20 the discharges would comply with 301(h).

21 JUDGE STEIN: I had asked a question of CCH 22 regarding whether there was any certification by the

66 68 state of Hawaii that could be found in the record with all these critical initial dilution factors, and then respect to the application for a variance. frankly, EPA had decided to simplify it, so I think 3 MS. LEITH: I don't think there was. That's that's what that all -- and that goes to the same issue addressed towards the end of both the final decisions. of the regs wanting to be very conservative and making There's a section called compliance with other laws, sure that standards will be met under the most -- what and in order to get a variance, you need a 6 are they called -- the most critical conditions. certification from the state. You also need to show 7 JUDGE STEIN: [To other judges:] Before she that you comply with the Endangered Species Act, things 8 turns to other issues, do you folks have any other like that. 9 questions? Okay. 10 Basically, we took the position that unless 10 MS. LEITH: There's discussion -- another 11 EPA's tentatively proposing to grant the variance, it's statutory construction issue about 301(h)(9) about 11 12 really irrelevant whether or not there's a state 12 whether it refers to just EPA water quality criteria, 13 certification or not. I don't think there was, and I 13 which is actually what the language says, or does it 14 don't think the region used that as a ground -- I'm 14 also refer to water quality standards. I think CCH 15 sure the region didn't use that as a ground for denial. 15 essentially conceded that it refers to EPA water We have a lot of other issues, and I can just address quality standards, certainly -- and criteria where 16 17 them sort of briefly. 17 there is no directly corresponding standard. 18 JUDGE STEIN: Can I ask one more question --18 This is an issue that CCH has raised as to 19 MS. LEITH: Sure. 19 chlordane, because frankly, the EPA-recommended 20 JUDGE STEIN: -- before you move to your 20 criterion for chlordane is a lot less stringent than 21 other issues? 21 the Hawaii approved water quality standard. We think 22 MS. LEITH: Sure. that's pretty clear in the regs. Again, 67 69 1 JUDGE STEIN: Another question that I had 125.62(a)(1)(i) standards, (i) -- (ii) is additional posed to the city and county of Honolulu related to 2 water quality criteria. 3 helping me understand Section 125.62(a)(4), I 3 I just wanted to mention a little bit about 4 believe --CCH's request that the board consider new standards 5 MS. LEITH: Yeah. which are part of some Hawaii legislation that was JUDGE STEIN: -- and I'm struggling to 6 passed a few months ago. This was after the two final 7 understand what that's all about. I didn't know if you decisions, the Hawaii legislature passed a bill to 8 might be able to enlighten me as to what that provision 8 amend the water quality standards. These have not yet 9 is supposed to mean. 9 been submitted to EPA. They're not the standards in 10 MS. LEITH: It's not something that I focused 10 effect. You look at the definition of water quality on. Looking at it today, it looks like what it's 11 standards in 125.58(cc). It says water quality 12 referring to is critical initial dilution. That when standards are the approved water quality standards, so 12 13 you figure the initial dilution, you look at, these are 13 frankly, these new standards that EPA has not even the factors that we did look at in figuring the initial 14 received yet just are not relevant to this decision. 15 dilution, and frankly, my understanding of the way it 15 JUDGE REICH: Can I ask about water quality 16 used to work was instead of having a physical -- well, 16 standards as they relate to (h)(2) as opposed to 17 right now, the technical support document talks about (h)(9)? If -- (h)(2), unlike (h)(9), doesn't contain 17 18 how to calculate the ZID, and it's basically the depth 18 an explicit reference to initial mixing. If the

19

20

21

logic -- and correct me if it's not the logic -- of

looking at water quality standards in (h)(2) is an

assumption that the water quality standards are

protecting these various values, unless they're

of the outfall and you use that or the depth of the

It used to be, you'd calculate the ZID using

water and you use that as the radius around the

20

21

22

outfall.

70 72 exceeded by definition, you're not complying with then that's not water quality which assures the (h)(2). Then, in that context, if there is a mixing protection of a BIP. The way the -zone associated with a particular pollutant that the 3 JUDGE SHEEHAN: When you say "aren't being state has adopted and EPA approved, why wouldn't, at met," does that mean a single exceedance or weeks or 5 least in that context, you look at that standard with months? You did a lot of data gathering here, many of the associated mixing zone, because presumably, EPA them over many years, and I'm wondering where that line is between, if you can help us understand it between 7 again made a judgment there that there is no when compliance is sufficient and when noncompliance unacceptable environmental harm if you do not meet the standard until you reached the mixing zone? 9 sufficient that it means environmental harm as 10 MS. LEITH: Well, there again, I think EPA 10 understood by (h)(2). 11 regs for 125.62 do say at the ZID. I know the --11 MS. LEITH: That's similar to the same 12 JUDGE REICH: I'm going back to the statute. 12 question before. Is there ever a judgment call there? 13 MS. LEITH: So the -- but then again, under 13 And I think there may be, but I don't think we were 14 (h)(2), it's these same regs, and I think they also do 14 there here. For example, the toxicity numbers were so 15 mention the ZID, and it goes back to the same 15 bad. The toxicity standard was exceeded almost all the 16 requirement of being extra protective. The other point 16 time, and that's sufficient, I think, to say that you 17 to make, is, again, with Hawaii, there is not a 17 don't have water quality which is protective of a BIP. physical ZOM that Hawaii has not said standards don't 18 18 It may be -- it was probably a tougher call 19 have to be met within X amount, X feet of the discharge 19 for some of the other standards, but, again, it's kind 20 or anything like that. What Hawaii has is a process, 20 of a technical professional judgment call, and the 21 and it does not --21 region made that call. It set out in the tentative 22 JUDGE REICH: But it has a process that has 22 decision why it made the call. It specifically 71 73 led to a permit that has defined for at least certain discussed all the factors, and that was something the pollutants, a ZOM. public and CC -- including CCH could comment on. 3 MS. LEITH: It did, and that ZOM was bigger JUDGE REICH: Well, is it accurate to say --3 4 than the ZID, and looking back, we probably shouldn't as I think CCH does say -- that the only real have approved it back then. environmental harm that you relied on in making your 6 JUDGE SHEEHAN: And now that we're into 6 determination under (h)(2) was the failure to meet 7 (h)(2)'s territory for a moment, getting to CCH's 7 water quality standards, or is there something beyond argument about the fact that -- whether or not there's 8 that? harm, if there's noncompliance, and noncompliance 9 MS. LEITH: That was the primary basis for 10 doesn't automatically mean environmental harm, and the (h)(2) decisions. The region acknowledged that the 10 11 (h)(2)'s focus, of course, was on harm, the balance of 11 data were mixed. The region did carefully look at the 12 indigenous population, recreational activities and so 12 data, the biological data on existing conditions, and on -- is it your position if there is a compliance 13 13 looked at the water quality standards, including 14 exceedance, there is automatic harm, (h)(2) type harm? 14 toxicity. This is consistent with the regs, the 15 MS. LEITH: (h)(2) does say -- it does not 15 statute, the TSD. The region acknowledged that there 16 say it's simply current conditions. What it says is 16 were not actual demonstrations of currently existing 17 you have to have water quality which assures 17 harm 18 protection. So if you have standards that, for 18 It also pointed out there are just inherent example, if you're looking to the BIP, Balanced 19 difficulties in biological sampling. For example, you 20 Indigenous Population of fish, shellfish, aquatic life, 20 look at algae blooms. You might look at them once a

21

month, but that may not be when the algae's blooming.

It's hard to take biological samples all the time; you

21 and wildlife, you look at aquatic life standards. If

22 there are aquatic life standards that aren't being met,

74

1 just can't do it. Fish tissue samples, the fish swim

2 in and out. You don't know which fish to sample. So

we acknowledge there was a certain amount -- there's

both an uncertainty regarding the biological data, and

then the water quality standards violations were so

clear that the region's decision was that (h)(2) was

7 not met.

8 JUDGE SHEEHAN: You can see why that is a not insubstantial issue, and it seems -- I'm looking at,

10 particularly, pages 52 and 53 of your brief. Your

findings, for example, on recreational fishing, 11

12 dieldrin and chlordane could contribute to

13 bioaccumulation, and with regard to the BIP, there are

14 uncertainties in the data, algal blooms could be

15 occurring -- very subjunctive phrasing -- when the

16 cost, literally, is a lot of money for CCH to have to

17 meet the standards. So it just sounds as if the region

18 is a bit tentative when the consequences of their

19 decision are enormous.

20 MS. LEITH: Well, I don't know if tentative's the word I'd use. It might be cautious. It might be 21

22 precise. I think the region was trying to avoid saying

call it following the regs. The regs do say in -- I

think it's -- 125.62(c), for example, gets into

biological impact, and part one is water quality, and

part two is to show that a BIP exists. You have to do

both of those. There's guidance that EPA followed that

says in analyzing adverse effects to marine life, use

multiple lines of evidence, use chemical-specific, use

toxicity, and use biological data. And the region's

position is, just using one of those can't assure

protection. Again, it was being very conservative, and

11 that's how the region reads 301(h) and reads EPA's

position through its regs and through all its 12

13 preambles.

14 Bacteria, a couple issues, geometric means,

15 CCH is challenging the region's finding that the

Honouliuli plant couldn't achieve the geometric mean 16

17 for bacteria, and again, what they're saying is --

well, in one brief they said they're challenging the

19 response to comments and in one they're challenging the

20 finding itself. What they're really seeming to

21 challenge is the approach in the tentative decision

where the region, frankly, didn't have enough data to

75

77

76

there is evidence that -- of unacceptable

concentrations in fish tissue, because there was not

3 any -- you're right. There was not any evidence of

that. However the way (h)(2) is written, you don't

have to have actual evidence. You need to protect the

water quality. And that's -- that's the way the Clean

Water Act is written. You don't just wait for fish

kills. Water quality standards are written to protect

against things like fish kills, and that's why we have

10 to look and see were these water quality standards

being met, and the finding was that they were not, so 11

12 we considered that very significant... very important.

13 JUDGE SHEEHAN: I understand that water

14 quality is present and it's predictive, and predictive

15 is, by definition, not absolutely certain, but it still

16 seems as if there needs to be a certain rigor behind

17 the agency's decisions when the consequences are so

great for the regulated community. It just reads as if

19 the region didn't really know but just gave it a good

20 guess, and this is what it came up with.

21 MS. LEITH: Again, I wouldn't call it a good

22 guess. I'd call it best professional judgment. I'd

do a traditional geometric mean based on five or six samples a month.

2 3 The geometric mean is part of the standard

that has to be met, and all the region had was

generally one sample per month and sometimes even one

sample per quarter, so the region did what it could to

compare that data with the geometric mean. It looked

at individual numbers. It calculated annual means. It

9 calculated means at various depths, and all this

10 pointed to the geometric mean not being achievable.

11 But probably most important there as we point 12 out in our brief, after the tentative decision came

13 out, between the tentative and the final decisions,

14 there were two more years of data where there was a lot

15 more monitoring. There were three to six samples a 16

month. Traditional geometric means could be calculated, and it was not a close call. The

17

18 exceedances were frequent. There were often quite

19 large.

20 For example, the geometric mean water quality

21 standard is 35 colony-forming units, or CFU, of

22 enterococcus for 100 milliliters. The results were

78

15

16

17

18

19

21

1 often in the hundreds. A couple times, they were over 100 as compared to 35. So it was very clear where that was not being met in the last two years, which confirmed the findings before, even though the

5 geometric means were untraditional in those earlier years.

6 7 And again, I just wanted to point out here in 8 the reply what CCH is saying is that -- they don't seem to be challenging that these geometric means did not meet the bacteria standard. What they're saying is 11 there ought to be a remand so the region can explain it 12 better. And then, if you go back and look at the final decisions, the region clearly explained that standards 13 14 were not being met in 2008 and in 2007, and I think that's clear that standards were not being met. 16 There's no reason for a remand on that. That would be 17 just a way of delaying the process, frankly. 18 The disinfection issue that was discussed 19 briefly by Mr. Salmons, one issue he raised was that the Honouliuli permit said that -- basically, if Sand

JUDGE SHEEHAN: I know what the regs say, but it sounded like you were saying the regs need not be met here. 4 MS. LEITH: Yeah, I know. I can't remember

5 exactly what the permit said back in 1991. It may have been something like Department of Health -- Hawaii Department of Health can order it to go to disinfection. I can't quite remember that. I think that's in our brief somewhere. But in order to analyze 10 whether a treatment plant qualifies for a 301(h)

waiver, you have to look at the proposal of what the treatment plan is going to be, and if it's something 13 different from what it is, they need to show that that

14 improved discharge will meet it. Disinfection --

JUDGE SHEEHAN: But again, you seem to give a green light -- your words were "will be," disinfection will be used at Honouliuli if it works at Sand Island without any need for that normal showing.

MS. LEITH: I don't think one sentence in 20 the permit saying -- again, I'm not sure. I may have misspoke when I said, well, I'm not exactly sure what

the permit said. But again, I don't think -- even if

79

should have proposed it. And disinfection was required

at Sand Island starting in 1998. The 1998 permit

Island requires disinfection, it will be required in

22 Honouliuli, and my reaction to that is, well, then they

included a compliance schedule for Sand Island to install disinfection equipment, so starting in 1998,

CCH should have proposed disinfection.

21

6

7

13

14

15

16

22

JUDGE SHEEHAN: But if you already said that in the Honouliuli permit that if Sand Island has it, that facility is going to get it. It sounds like it was already laid out. There was a path forward. You had already stated your intention in the region and 11 that there was no need to go through the demonstration 12 process.

MS. LEITH: We couldn't have approved it without a demonstration. In order to have an approved discharge under the EPA regs, you have to do -- you have to do a lot of work.

17 JUDGE SHEEHAN: But the Honouliuli permit 18 didn't say that. That was, I think, their point, that it seemed to say that there's no need to produce the demonstration, because if it's good in Sand Island, 21 it's going to be good here, end of discussion.

MS. LEITH: I'm --

it did, that certainly wouldn't waive the region's

requirement to analyze whether the proposed discharge

3 will meet standards, will meet the 301(h) requirements,

and it wouldn't waive the requirement in -- I think

it's 125.62(e) -- about if you're applying for an

6 improved discharge, you need to show it's thoroughly

planned and studied, lots of technical things.

8 For example, there's different kinds of 9 disinfection. There's UV disinfection. There's

10 chlorination. The plant would have to decide which one

11 it was going to use, and I think the '88 permit

12 actually referred to chlorination, and then, as things

13 evolved in the 90s, they decided to go with UV in Sand

14 Island. And in terms of what you have to do to make a

15 showing of an improved discharge, I just wanted to

16 emphasize that CCH knew how to do this, because they 17

did it for Sand Island.

If you look at the Sand Island administrative record document S.19.32, it's a 421-page disinfection

20 study from January of 2000. The next document,

21 S.19.33, is a 98-page disinfection pilot study, so they

knew what they had to do, and to say that a -- a

18

19

81

9

82 84

statement in their comments, EPA -- that disinfection 2 can address bacteria, to say that that is a proposal is just totally not in keeping with the regs, and the region just couldn't accept that as a proposal. It in 5 no way showed that CCH even wanted to disinfect or that it would work.

7 JUDGE STEIN: I had a question about whether 8 wet or dry water quality criteria applied for turbidity and nutrients. I thought that the Honouliuli permit 10 specified that dry water quality applied, but in the final decision document, the region notes that CCH 11 12 modified the receiving water designation from dry to 13 wet, so which ones now apply, and was the old permit 14 ever modified? I'm just trying to understand how this 15 works.

MS. LEITH: Yeah. The -- so you're saying 16 17 the '88 permit or the '91 permit is different from the 18 decision here.

19 JUDGE STEIN: It appears to be.

20 MS. LEITH: I don't know if the permit was 21 modified. I know there was a change. There was some

changes, I think, in state water quality standards

frankly, the urchin's a lot more relevant because it's

a native species, and it's a marine organism. 3 So CCH isn't contesting that the tests, using

this urchin test, indicate exceedances, and they can't.

At Sand Island something like three-quarters of the

tests in the past ten years failed this test; at

Honouliuli, it was like 60 to 70 percent. The standard

was just not being met --

JUDGE SHEEHAN: Well, I think, again -- I 10 agree I don't think their challenge is to the method used to produce the results or that the protocol wasn't 11 12 subject to the inter-lab viability testing, and that

13 the West Coast manual which should govern here does

14 include this test method, so what is your response to 15 method used?

16 MS. LEITH: To the method used, my first 17 response is I'd urge you all go back and look at the 18 response to comments, because there are 19 pages in

19 Sand Island and about 13 pages in Honouliuli --

20 actually, I think I have that backwards. What CCH is

21 doing is criticizing the response to comments, and the

85

22 region responded very comprehensively.

83

In terms of the questions you raised

concerning the fact that the EPA -- or that the urchin

3 test was not approved under Part 136 -- I think we

mentioned that in our brief, and in the response that's

kind of a red herring. Part 136 doesn't address

toxicity tests for marine organisms in the Pacific 6

Ocean. It just does not occupy the field there.

Interlaboratory testing is not required. It was done.

It -- what EPA said when they published the Whole

10 Effluent Toxicity promulgation, which standardized some

11 tests for East Coast and Gulf Coast species and fresh

12 water species, it said that interlaboratory testing was

13 a good tool, but it wasn't required.

There are some published species that have not undergone interlaboratory testing. The West Coast method, there's nothing that says that a test has to be included in the West Coast method. That's given as an

17 18

example of certain permits that are not officially

19 promulgated by EPA Headquarters -- I'm sorry, not

20 certain permits -- certain types of tests which are

21 acceptable on the West Coast.

So on the West Coast, which would include

during the 90s and/or CCH made some changes. I don't

remember that, frankly. I know it's discussed in the

tentative decision and in the final decision, so it may 3

4 be that wet was analyzed in '88 and dry was analyzed in

5 2007. That doesn't seem to be anything CCH has

6 contested, and I think they're the ones that did make 7

the change.

8 Whole Effluent Toxicity, if we have some more time, this is -- toxicity is one of the big problems with both of these discharges. There's recurrent

11 failure to meet the standards for toxicity, and I won't

12 go into how the standard came about and how it's

analyzed, but I think it's clear from the briefs.

14 There were two species that were analyzed for toxicity,

15 the flea and the urchin. The flea was a fresh water

16 flea, and the discharge passed the flea test. It

17 failed the urchin tests. Using multiple organisms is

18 what you're supposed to do. There's EPA guidance.

19 There's Hawaii guidance saying you really ought to use

20 three organisms so that you can make sure to protect

21 the most -- the most fragile of the organisms, the most 22 sensitive, and here it would be the urchin, and

> (866) 448 - DEPO www.CapitalReportingCompany.com © 2010

14

15

16

86 1 Hawaii, it's basically left to the discretion of the permit writer, and one of the points that EPA -- that the region made in its response to comments is that this urchin test has been pretty much the main test that's used in Hawaii permits for the past ten years. I see the red light. Should I explain a little bit more or do we pass the baton to --JUDGE STEIN: Why don't you just take about two minutes, and then we'll wrap it up and give CCH a 10 little bit of extra time? So if you want to take two minutes, and then we'll wrap things up. 11 12 MS. LEITH: Okay. I think -- just one more 13 thing on the comments regarding the urchin test. There 14 was also arguments about biological significance as 15 opposed to statistical significance. We addressed that 16 in the brief. The region bent over backwards to try

17 and address those comments. They tied -- they quoted

EPA studies about how WET tests accurately predict real

world effects. They did additional testing, this PMSD

procedure. And the other main point we make in the

briefs is essentially by saying this test and this

22 water quality standard -- this test doesn't predict

thought that's what they were saying, and then in their reply brief, they said wait a minute, the region didn't read very carefully it wasn't used in Port Loma. 4

88

89

Just bottom line, two things, a lot of what CCH is getting at is delay. They're asking for remand to consider standards that haven't been approved to

consider decisions EPA clearly made, to consider proposals that weren't made, and there's lot of

language in our brief that EPA's interpretation of

301(h) is not meant to be a mechanism for delay, and 10

11 the board has recognized an interest in finality and 12 expedition. And then to reiterate the first comment

that in order to get a 301(h) waiver, you have to 13

demonstrate that all these criteria are met, and if you 14

15 don't demonstrate that they're all met, then the EPA

16 really doesn't have any authority to grant the waiver.

17 Thank you.

18 MR. SALMONS: Thank you, Your Honors. I will 19 try and be brief. I realize that we have gone over, 20 and I appreciate the Court's indulgence with the number

21 of issues we've had to cover.

If I could, I'd like to begin with some

87

22

1 real world effects, essentially, CCH is challenging the

Hawaii water quality standard. Now, it's a little complicated to get into, so I'll kind of leave that for

4 the briefs.

18

19

20

21

Dieldrin we haven't touched on at all, 5 basically, we've got a toxic pollutant violated nearly

all the time at both treatment plants. The bottom line, the region analyzed a whole lot of data using an

EPA-approved method that was specified in the permit.

10 It was specified in the TSD. It also -- toxicity --

11 CCH is saying -- they're trying to discredit their own

12 data by doing these split samples that the region had a

lot of problems with, and they're trying to submit 14 additional data now where it too's late. That's kind

15

of the bottom line on that one --16 JUDGE SHEEHAN: A question on that, that

17 Method 608 was used -- you're saying Method 8270

18 used because it hadn't been approved, but as CCH points

out, 8270 was used in Port Loma, and it's good enough

for Port Loma, why wasn't it good enough here?

21 MS. LEITH: Actually, it wasn't used in Port 22 Loma. That was my mistake reading their brief. I

statements that were made with regard to the findings

about ammonia nitrogen at Sand Island, and I think this

3 goes to the question of whether a remand would be

required if the Court were to agree with any of our

5 arguments. And I think this is very important, and so

6 if the Court were to refer to the Sand Island final

opinion at pages 62 through 64, you'll see the

discussion about ammonia nitrogen, and what it actually

9 found is that, in 1999, there are some exceedances at

10 the ZOM, and then otherwise, in later years, there are

11 very few, depending on how you do the geometric mean.

12 There's either only two, or there's a small 13 number that's slightly larger than that, but the 14 conclusion is that after -- between 2000 and 2006,

15 there were not nearly as numerous or as consistent 16 exceedances with regard to ammonium nitrogen as in

17 1999. And then comes the conclusion on 63 and 64 with

18 regard for ammonia nitrogen -- and this we think makes

19 clear they were not relying on those hand small number 20 of exceedances at the ZOM in actually denying the

21 waiver at request here.

What it says is that the Hawaii water quality

90 92

MR. SALMONS: Well, I just think that that's

1 criteria for ammonia nitrogen were exceeded in all depths in 1999, and the data shows that the exceedances of ammonia nitrogen criteria have persisted to a lesser

extent in all three depths of the water column. Excuse

me. It is likely that the number of exceedances at the ZID, where 301(h) regulations require attainment of

water quality standards would be greater than the

exceedances found at the current monitoring stations; therefore, the applicant has not demonstrated that it

10 can consistently attain state water quality standards

for ammonia nitrogen. 11

20

basis.

12 We think that it's clear that it's not a small 13 number of exceedances at the ZOM on which they based 14 their denial of the request. It is the inference that 15 there must be more at the ZID; therefore, you -- we 16 predict you're not going to be able to meet the 17 standard. There has been no determination that if the ZOM were all that were required that we wouldn't be 19 able to meet that ZOM going forward on a consistent

21 And, in fact, the data shows that there were 22 relatively fewer exceedances in the more recent time

region's argument, that as long as you don't meet one of the water quality standards, the region has no discretion to grant the waiver? 4

not a fair characterization given that what we're 6 talking about here are -- and again, we have a variety 7 of arguments that address the specific ones that I haven't had a chance to get into, but even assuming 9 that some of those exist, it's not like every

10 exceedance automatically results in a determination: 11 you're not going to be able to comply with the standard

12 in the future. It's not perfection, and there's always 13 a judgment that's --

JUDGE STEIN: Well, is the standard that you're not going to be able to comply in the future or that at the time of the decision you're not complying? MR. SALMONS: Well, the test -- I'm sorry.

18 The test is at the time that the waiver that you are

19 going to be discharging under the waiver, which would 20 be for the period of time, if it's granted, for the

21 five-year period that you'd be existing under the

22 waiver application. And so it is that sort of

91

14

15

16

17

period, which I think brings up another point with regard to the need for remand if we were to prevail on

3 any of our issues, and that is that if you look at the

conclusion for both of these decisions -- and

5 Honouliuli it's on page 99, and Sand Island it's on

page 82 -- they're essentially identical, except that

7 Honouliuli include bacteria, but otherwise, the

8 language is exactly the same. 9

And it says that the decision to deny the 10 waiver application, quote, is based on findings that the proposed discharge would exceed water quality 12 standards for bacteria, chlordane, dieldrin, Whole 13 Effluent Toxicity, and ammonia nitrogen. And then what 14 follows are, you know the statements which Your Honors

15 referred to before -- that it could lead to

16 bioaccumulation and the like. It's all based on those

17 exceedances of those standards, and it's a cumulative

determination. There's no way to tell on this record

if some category of those exceedances were taken out, 20 if bacteria, for example, was taken out at Honouliuli

21 or if --22

JUDGE STEIN: How do you respond to the

predictive judgment, and I think that what you see 2 here -- and this is -- I think goes to a broader point.

3 Honolulu has been discharging into these waters with this effluent for decades, and there's no

physical evidence of any biological harm, so now we're

93

fighting about these standards, and we're doing it with

modified standards that reflect the state water quality standard and the federal ZID, because the region has

decided -- I believe her terms were that they wanted to

tighten up the standards. They didn't think -- they

11 kind of regretted granting the state's mixing zone, but 12

that's not what this is about.

13 Under (h)(9) -- first of all, there's no 14 reference to applicable under (h)(9). That comes in the regulations. (h)(9) only refers to the federal 15 16 statutory criteria, and they have not posited any 17 explanation as to why the state mixing zone does not

fully comport with the federal criteria. The last thing I would just say is that

20 this -- all of these issues we've been discussing, we

21 think it's very clear that they were put at issue

22 during the comment period, and they're appropriate for

18

94 96

a decision by this board. And again, these are

- significant policy changes that have been adopted by
- the region. It may be the case that they caught
- Honolulu a little bit by surprise, but they did their
- best to respond at the time. They said clearly that
- you have to apply the ZOM for everything except for

7 and suspended solids, because that's the way you've

always done it and because that's what's required. 8 In our brief, we made clear that our arguments 10 with regard to ZID/ZOM apply to all of the pollutants

except for bacteria, which includes these pollutants 11

12 for which a dilution factor has been used, and with 13 regard to that, I would point the Court to the EPA's

14 technical support document, what my friend on the other

15 side referred to as their bible for these things, which

16 defines in the discussion, for example, of WET

17 testing -- and this is in the record at S02-4184. This

18 is from the technical support manual, and it says it

19 walks through step by step how do you determine the

20 dilution factor when you're doing the WET test, and

21 it's the same for these other toxics.

22 And it says, Step 1, dilution determination. standards, including the state mixing zone, reflect the

federal criteria. Now, with regard to chlordane, the

federal chlordane standard also reflects that federal

criteria. And it's certainly the case that states can

adopt higher standards, you know, standards that are

higher than what the federal criteria would otherwise

require, but the only thing (h)(9) requires is

compliance with the federal criteria.

9 If the federal criteria made it more strict, 10 then Honolulu would be bound by that in showing that

the federal criteria was satisfied. If the federal

criteria shows that the state standard doesn't have to

13 be as strict as it is in order to comply with the 14 criteria, then all that the statute requires

15 satisfaction of is the criteria. Does that make sense?

16 JUDGE SHEEHAN: That clearly -- I'm not sure.

17 The chlordane in the state standard is stricter than in

the federal standard, so the state standard was tripped

19 up -- was not met for chlordane, as I understand it,

20 and your argument is, well, that's okay. Let's worry

21 about just the federal standard, which is looser, less

stringent. That's the one that should govern here.

95

3

14

15

16

The initial step is to determine the dilution of the

effluent at the edge of the mixing zone, assuming the

state allows mixing zones. So we think that is clear

that part of the determination that was made to change

the dilution factor reflected this change by the region

that it's the federal ZID instead of the state mixing 7

zone that has to apply.

JUDGE SHEEHAN: To this -- to the point about state versus federal standards and where the standards are measured, I found it a little bit anomalous that when you argued (h)(9), it was the state standards that 12 were supreme. They reigned, and federal standards

didn't come the into the picture. When you argued your 13 14 chlordane point, you seemed to say that, well, it

doesn't really matter what the state standards call

16 for; it's the federal standards that have to govern

17 here. So can you explain the seeming shift in

18 emphasis?

8

9

11

19 MR. SALMONS: I'm happy to, Your Honor, and I think, in fact, that it's consistent. What (h)(9)

requires is compliance with the federal criteria of the 22 act, and the region -- everyone agrees that the state

20 authority to go through regardless of permits, 21

22 a higher burden. But when -- with regard to chlordane,

Don't worry about the state standard being --2

MR. SALMONS: In each --JUDGE SHEEHAN: -- not met.

MR. SALMONS: In each case, Your Honor, what

97

5 (h)(9) in our view requires is that you show that you're going to be in compliance with the federal

criteria. That's what the statute requires, and I

think that everybody agrees with that. The point we make with regard to state standards they agree with,

10 which is that those state standards are approved

11 specifically to comply with the federal criteria.

12 That's also true for the state mixing zones. 13

And there's no suggestion that the reason there is a ZID is because state mixing zones are unreliable or unprotective of environmental concerns,

and if the region actually felt that there was a 17 problem with the state mixing zone, it has ample 18 avenues of recourse to tighten it up. It doesn't need

19 the 301(h) waiver process as sort of a roaming grant of

regardless of state water quality standards, and impose

98 100

there is a specific federal numerical standard. That standard, too, reflects the federal criteria of the act, and so if you comply with the federal criteria --

3

3

4

6

analysis.

JUDGE SHEEHAN: Even if the state standard, 4 5 which is local, to meet local conditions, local 6 designated uses, is more stringent?

7 MR. SALMONS: That is our position, because 8 the statute requires compliance with federal criteria. and I think there's no way to suggest that the federal chlordane standard doesn't comport with the federal 11

criteria. And again, it's not inconsistent, I would suggest, Your Honor, because if the federal standard 13 went the other direction -- if the federal standard

14 instead of being more lax than the state standard was

15

16

17 standard in that instance, because that is what

18 reflects the federal criteria. That's what the statute

requires. Everybody agrees that the state -- as a 19

20 general matter, if there's no inconsistent federal

21 criteria, federal standard, everybody agrees that the

with the federal criteria, and therefore, they're a

good proxy for the federal criteria in doing the (h)(9)

were starting to talk about in terms of the dilution

more stringent than the state standard, we would still say, under (h)(9), you have to comply with the federal

state approved standards and mixing zone are consistent

is the technical support document that the region

referred to, which is also in the record, as evidence

of how these things were calculated, and that's what

I'm referring to when it says Step 1, you know,

determine the mixing zone, because that's what your

target is when you're doing the rest of the -- taking

the rest of the factors into account with regard to the

dilution factor. 8

9 And again, I think if you step back and ask, 10 what is the point of having the dilution factor, well, for these toxics, you're measuring them at the end of the pipe essentially, and everybody understands that you have to dilute it somehow, and you have to have a target in mind, you know, how much? And there are a lot of things that go into it in terms of, you know, assumptions about the plume, assumptions about 17 temperature, assumptions about the flow and tides, but one of the key assumptions is, is there a mixing zone.

18

19 and if so, what's the edge of it, because that's what

20 you're shooting towards, and that's the best I've been

21 able to do to try to understand it.

And what -- the point I would make is that

101

99

both the region and our comments in responses and

briefing have focused on ZID/ZOM as a separate issue, because it is a separate issue, but it relates, as we

have tried to make clear, to all the pollutants, except

for bacteria. We're not making it with regard to

bacteria. We have the disinfection argument there. And it at a minimum, I think it's -- from the technical

documents clear that's part of how you determine the

dilution factor. And if it's not clear whether it

applies or not, then I think that would be an

11 appropriate thing to take up on remand as well. 12

JUDGE STEIN: Thanks. I just want to make 13 one comment in closing and that is that we've heard a 14 lot of argument today back and forth about issues that 15 were and weren't preserved, and we've obviously asked a

16 number of questions about the issues raised in the

17 briefs, and the board, of course, has made no

18 determination on the issue preservation question. And

19 our asking these questions doesn't imply that we're leaning

20 in one direction or another, but we wanted to get a full

21 explanation of the arguments on the merits in the event

that we reach the merits on all of the issues that have

22

JUDGE REICH: Getting back to something you

factor -- and it seems both parties do agree that the dilution factor that was used in the region's analysis was different from the one in the permit. Counsel for

the region posited a number of possible reasons why that was the case. You were, I think, starting to say

10 11 that it is clear -- were your words -- that it was, at

12 least in part, attributable to the change in the way

13 the mixing zone was used. When you say it is clear, does that mean that it is clear on the record? Or is

15 there something documented in the record that explains

16 this change that would allow us to get at why this 17 change was made?

18 MR. SALMONS: There is discussion in -- the 19 short answer is it's not as clear in the decisional 20 documents as would be nice, but there is language in

and the change in the dilution factor, and then there

both final decisions that discussed the dilution factor

		<u> </u>
	102	
1		
	been raised.	,
2	F	
3	caliber of their briefs and on the caliber of their	
4	argument. I thought that the briefs were very helpful,	
5	lengthy, but they enabled us to understand the issues,	
6	and we appreciate the lengthy argument this afternoon,	
7	and at this point we stand adjourned. Thank you.	
8	(Whereupon, the proceedings were	
9	concluded at 5:00 p.m.)	
10	concluded at 3.00 p.m.)	
11	* * * *	
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
22		
1	· · · · · · · · · · · · · · · · · · ·	
	103	
1		
1 2	CERTIFICATE OF NOTARY PUBLIC	
2	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the	
2 3	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify	
2 3 4	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral	
2 3 4 5	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter	
2 3 4 5 6	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription	
2 3 4 5 6 7	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither	
2 3 4 5 6 7 8	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the	
2 3 4 5 6 7 8 9	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and,	
2 3 4 5 6 7 8 9	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any	
2 3 4 5 6 7 8 9 10 11	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor	
2 3 4 5 6 7 8 9 10 11	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of	
2 3 4 5 6 7 8 9 10 11 12 13	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor	
2 3 4 5 6 7 8 9 10 11 12 13 14	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.	
2 3 4 5 6 7 8 9 10 11 12 13 14 15	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER Notary Public in and for the	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER Notary Public in and for the	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER Notary Public in and for the	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER Notary Public in and for the District of Columbia	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER Notary Public in and for the District of Columbia	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	CERTIFICATE OF NOTARY PUBLIC I, ERICK M. THACKER, the officer before whom the foregoing oral argument was taken, do hereby certify that the testimony appearing in the foregoing oral argument was taken by me in stenotype and thereafter reduced to typewriting by me; that said transcription is a true record of the proceedings; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. ERICK M. THACKER Notary Public in and for the District of Columbia	

	1	03
. 1	CERTIFICATE OF NOTARY PUBLIC	
2	I, ERICK M. THACKER, the officer before whom	٠.
3	foregoing oral argument was taken, do hereby certif	Еy
4	that the testimony appearing in the foregoing oral	
5	argument was taken by me in stenotype and thereafte	er
6	reduced to typewriting by me; that said	
7	is a true record of the proceedings; that I am	
8	counsel for, related to, nor employed by any of the	.
9	parties to the action in which this was taken; and,	
10	further, that I am not a relative or employee of an	ιy
11	counsel or attorney employed by the parties hereto,	
12	financially or otherwise interested in the outcome	
13	this action.	
14	Erick m Thacker	
15	ERICK M. THACKER	
16	Notary Public in and for the	
17	District of Columbia	
18		
19		
20		
21	My commission expires:	
22.	June 14, 2014	

		,	
0	14 103:22	301 59:4	608 87:17
09-01 1:6 5:7	19 1:10 84:18	301(h 17:9 28:1,5	61 17:18 18:20
	1979 61:10	44:3 46:7	20:5,14 21:16
1 1 13:18,21 94:22	1986 18:19 46:21	47:20,22 48:6 54:7,8 55:7	22:8 35:12 38:14 47:3
100:4	1988 7:1 11:9,10	58:8,17 59:20,22	62 17:20 18:21
1,000 64:4,7	12:3 60:18 61:17	60:11 65:8,11,20	19:12 44:16 89:7
100 77:22 78:2	62:22	76:11 80:10 81:3 88:10,13 90:6	63 13:16 45:3
120 36:20	1991 54:6 60:18 80:5	97:19	89:17
1200 2:18	1994 16:17,18	301(h)(2 48:13	64 89:7,17
1201 1:14	56:14 60:19	301(h)(9 6:11 15:1	7
122.2 55:6,14	1998 79:2,4	20:7 44:9 48:9	70 84:7
125 32:15	1999 89:9,17 90:2	54:5,8,13,21 68:11	75 2:11
125.58 32:6		35 77:21 78:2	79 61:10
125.58(cc 55:2 69:11	2 2 25:13	373-6000 3:7	8
125.61 17:6 25:14	20 6:20 36:9	39 54:6	82 91:6
42:14 46:13	2000 81:20 89:14	4	8270 87:17,19
125.62 16:8 17:3	20006 3:6	40 19:21	88 81:11 82:17
19:21 25:11 34:21 37:13	2004 64:8	412 13:17,21	83:4
54:17 57:8,9	2006 89:14	415 2:13	9
59:5 70:11	2007 62:20,22	421-page 81:19	9 2:9 5:19,22 47:16
125.62(a 18:9	78:14 83:5	45 6:5	90s 81:13 83:1
33:17,20 34:4 35:4 54:4,12	2008 78:14		91 20:6 57:5 61:9
125.62(a)(1 20:7	2009 1:10 62:21	5 5 4:3,4	82:17
46:14 54:5,10	2014 103:22	5:00 102:9	94 16:21 24:13
125.62(a)(1)(i 69:1	202 2:21 3:7	52 74:10	57:3 61:8,9,12
125.62(a)(4 41:5	2020 3:5	52 74:10 53 74:10	94105-3901 2:12
67:3	20460 2:20	564-5491 2:21	972-3884 2:13
125.62(c 76:2	2355A 2:19	58(dd 32:14	98-page 81:21
125.62(e 81:5	25 11:6	30(uu 32.14	99 91:5
125.62(i 42:12	3	6	
13 84:19	3 25:12	6 4:7	a)(1 19:13,22
136 85:3,5	3:00 1:17	60 18:20 84:7	25:13,20,21 38:4

a)(1)(i 20:1 41:6	68:13 81:12	aggressive 10:17	56:1 58:9 61:18
a)(2 38:7,12 41:6	84:20 87:21	35:20	99:3,7
a)(3 25:12	89:8,20 97:16	ago 35:18 51:14	analyze 80:9 81:2
a)(ii 21:1	added 19:11,13 20:16 21:3,20	69:6	analyzed 48:7
ability 39:18	28:1	agreeable 40:2	83:4,13,14 87:8
able 30:6 50:21	addition 25:13	agreed 20:22	analyzing
67:8 90:16,19	additional 69:1	algae 73:20	50:12,17 56:16 76:6
92:11,15 100:21	86:19 87:14	algae's 73:21	
absolutely 75:15	address 6:10,12,14	algal 74:14	and/or 83:1
accept 33:22 82:4	17:1 21:3 27:17	allegedly 51:19	annual 77:8
acceptable 57:21	30:6 40:11 60:14	allow 26:16,21	anomalous 95:10
85:21	66:16 82:2 85:5	99:16	answer
acceptance 35:5	86:17 92:7	allowed 24:5 27:3	40:18,19,21 50:22 51:11
account 26:11	addressed 9:16 28:8 66:4 86:15	allows 24:2 95:3	58:12 61:1 64:12
100:7		alone 45:19	99:19
accurate 29:4 53:9	adds 19:12	·	answers 60:7 61:2
73:3	adequacy 30:4	already 44:12 46:4 79:6,9,10	anything 15:7
accurately 86:18	adequate 16:11	alternative 44:5	20:14 37:21
achievable 77:10	adequately 28:7	49:21	40:13 55:17,19
achieve 76:16	adjourned 102:7	am 7:14 103:7,10	57:11 60:8 70:20
acknowledge	administrative	ambient 8:9	83:5
60:21 74:3	81:18		apologize 13:4 34:5
acknowledged	adopt 22:22 24:14	amend 45:20 69:8	
73:10,15	30:12 96:5	amended 20:17	appeal 1:5 5:7 43:22
act 24:2 25:5 27:22	adopted 10:20	22:1,2 56:12	
31:5 55:11 59:13	23:2 70:4 94:2	amendments 19:12 25:5	Appeals 1:1,12 2:2 5:2
64:9 66:8 75:7	adoption 36:6,21		appear 33:19
95:22 98:3	37:3	ammonia 48:11 49:4,5 63:8,9,10	* *
action 103:9,13	adverse 76:6	65:4,6 89:2,8,18	appearing 103:4
actions 62:9	affect 49:2	90:1,3,11 91:13	appears 24:18 82:19
activities 71:12	afternoon 47:15	ammonium 8:5	
act's 15:15	102:6	89:16	applicable 17:4,5,8,21
actual 63:22 73:16	against 37:7 75:9	amount 70:19 74:3	18:2,4,14 19:1
75:5	Agency 1:1,13	ample 97:17	20:2,13,15
actually 5:20 8:8	2:7,10,17 5:3	analysis 15:1,21	21:6,10,17 22:6
9:2 57:4 63:17	agency's 75:17	16:2 33:8 39:6	25:7 26:2,3

27:12,15 33:21	appropriate 11:10	11:13,15,19	90:6
34:1,10,19	12:21 14:21,22	24:19 36:11	attempt 14:3
35:6,8,11	93:22 101:11	argument 4:2,6	attempting 9:21
37:14,15 38:5,13	appropriateness	5:4 6:5	
39:12 41:18 42:13,15	30:5	9:15,17,21	attorney 103:11
46:13,15,16,17	approval 24:9	10:11,13	attributable 99:12
47:3	28:17 29:8,10,13	12:18,22 14:6	authority 48:6
54:15,19,20,21,2	30:8,10,22	15:6 16:16,19	88:16 97:20
2 55:1,3,5,10,13	approved	27:11 34:6	automatic 71:14
56:6 93:14	7:2,15,16 8:15	35:3,5,6 36:22	
applicant 12:7	9:7 10:9 12:12	49:4,11 71:8 92:1 96:20	automatically
44:17 48:5 90:9	14:21 15:17 16:5	101:6,14 102:4,6	71:10 92:10
	19:14 20:18	101:0,14 102:4,0	Avenue 1:14 2:18
applicants 48:17 56:16	22:19,21	•	avenues 97:18
	25:18,22 26:9	arguments 1:11	avoid 10:19 74:22
applicant's 16:10	28:3,13,15,16	10:1 14:10,19 41:13 46:2 86:14	
application 6:11	31:16 32:2 33:12	89:5 92:7 94:9	aware 28:9
11:2 40:2,16	38:10,16 39:2	101:21	away 30:2
44:3 45:20 66:2	41:22 42:18,21		
91:10 92:22	43:11 52:20 55:4	art 54:20 55:20	В
applications 36:2	68:21 69:12 70:4 71:5 79:13,14	assertion 10:11	backwards 84:20
applied 9:2 13:18	85:3 87:18 88:6	11:14 35:20	86:16
37:7 82:8,10	97:10 98:22	Assistant 2:9	bacteria 6:13,16
Í		associated 70:3,6	14:11 27:14
applies 14:7 27:15 29:2 34:1 54:17	approving 57:20		45:17 46:3 48:13
55:15 101:10	aquatic 48:15	assume 22:3 34:9 55:19	49:5,6 56:19
	71:20,21,22		64:2,4 65:16
apply 10:3 12:6	arbitrary 7:13	assuming 92:8	76:14,17 78:10
14:10 15:7 20:19	45:21 46:6	95:2	82:2 91:7,12,20
25:13 26:22 39:21	area 8:9	assumption 69:21	94:11 101:5,6
41:16,17,20,22	areas 28:7 64:10	assumptions	bad 72:15
43:12,14 55:21		100:16,17,18	balance 71:11
56:2,4 57:9,10	aren't 52:6 71:22	assure 76:9	Balanced 71:19
82:13 94:6,10	72:3		
95:7	arguably 32:22	assures 71:17 72:1	based 11:3 41:6
applying 33:8	argue 21:22	ATSD 56:13	77:1 90:13
41:20 81:5	35:8,14 39:21	attain 90:10	91:10,16
appreciate 88:20	argued 12:20 16:1	attained	basically 18:9
102:6	95:11,13	50:10,15,18,19	34:13 55:9 66:10
	arguing	attainment 48:14	67:18 78:20 86:1 87:6
approach 76:21	88	accomment TU.1T	07.0

		, 	
basis 11:19 49:11	76:3,8 86:14	78:19	73:11 88:3
50:6,7,8 73:9	93:5	briefs 9:16 10:2	carries 19:16
90:20	BIP 71:19 72:2,17	12:19 48:20 61:8	carry 22:4
baton 86:7	74:13 76:4	83:13 86:21 87:4	case 6:22 9:3 10:21
bay 56:5	bit 12:17 52:13	101:17 102:3,4	12:14 14:11
Beach 64:9	69:3 74:18	bring 35:22	15:19 18:1 29:11
bears 8:17	86:6,10 94:4 95:10	brings 91:1	49:15,19,20 65:5
becomes 15:2	bite 56:12	broad 31:16	94:3 96:4 97:4 99:10
16:10 22:21	blooming 73:21	broader 16:18	cases 7:11 13:13
begin 6:18 88:22	blooms 73:20	21:11 35:2 37:15 93:2	casino 49:19
behalf 2:2,7 3:1	74:14	broadly 15:10	category 91:19
behind 75:16	blunt 40:9	33:17 38:8	caught 94:3
believe 6:3 7:18	board 1:1,12 2:2	brought 37:2	caught 54.3
9:5 10:1 11:10,21 12:10	3:10 6:9,18	burden 39:19	CC 73:2
14:9,16 31:15	14:19 34:10 48:16 49:13 69:4	97:22	CCH 49:11,19
40:19,21 41:1,5	88:11 94:1	burdens 28:6	50:20 51:12
57:2 58:12 67:4	101:17	buried 54:19 60:5	53:19 64:19
93:9	Boards 5:2		65:21 68:14,18
bent 86:16	İ	C	73:2,4 74:16
best 17:2 20:12	Bob 5:17	calculate 52:22	76:15 78:8 79:5
25:3 40:19 75:22	BOD 12:8,15	67:18,22	81:16 82:5,11
94:5 100:20	15:18,21	calculated 13:20	83:1,5 84:3,20
better 78:12	17:10,12 21:10 41:19 54:18	52:16,18 59:21	86:9 87:1,11,18 88:5
beyond 15:7 16:14	56:22 94:6	77:8,9,17 100:3	CCH's 69:4 71:7
37:17,22 73:7	bottom 87:7,15	calculating 8:18	
bible 56:15 94:15	88:4	53:17	cell 5:10
bigger 71:3	bound 96:10	calculation 13:21	certain 23:3 26:16 36:19 58:17 62:8
bill 69:7	bounds 17:12	calculations 65:1	63:5 71:1 74:3
billons 40:8	brief 14:9 22:1	caliber 102:3	75:15,16
Bingham 3:4	54:6 58:20 59:17	California 2:12	85:18,20
bioaccumulation	60:6 74:10 76:18 77:12 80:9 85:4	Capital 1:15	certainly 10:15 15:22 27:22 28:9
74:13 91:16	86:16 87:22	capricious 7:13	60:9 68:16 81:1
biochemical 7:6	88:2,9,19 94:9	45:22 46:6	96:4
biological 41:10	briefing 101:2	carcinogens 57:7	CERTIFICATE
73:12,19,22 74:4	briefly 66:17	carefully 26:9,17	103:1

certification 40:15,18 65:22	chlordane 6:15 8:19 9:9	clearer 13:7	comments 10:12,14,18 11:4
66:7,13	13:15,19 48:11	clearest 56:11,12	24:16,17 59:14
certify 103:3	52:12 53:22	clearly 10:1 12:20	76:19 82:1
cetera 64:13	63:18 64:14,22	16:8 18:12 39:14	84:18,21
	68:19,20 74:12	45:13 47:1 49:17 51:1 57:13 63:1	86:3,13,17 101:1
CFR 19:21	91:12 95:14 96:2,3,17,19	78:13 88:7 94:5	commission
CFU 77:21	97:22 98:10	96:16	103:21
challenge 8:11	chlorination	Clerk 3:10	community 75:18
35:18,22 36:6,19 37:2 76:21 84:10	81:10,12	close 7:4 77:17	Company 1:16
	circumstances	closing 101:13	comparable 55:14
challenged 24:20 53:20	26:17 29:3 39:20	cloth 47:6	compare 77:7
challenges 10:11	citation 60:4,6		compared 78:2
	citations 54:11	Coast 84:13 85:11,15,17,21,2	compliance 7:5
challenging 76:15,18,19 78:9	cite 45:11 52:16	2	12:5 15:14 22:16
87:1	53:15	coastal 28:7	31:8 39:22 41:6
chance 42:6 92:8	cited 49:20	Code 2:19	56:17 57:19,22
change 10:20 11:7	city 1:4 3:1 5:4,16	.	65:9,10 66:5 71:13 72:8 79:3
12:2 30:14,15,19	6:3 49:3 67:2	coefficient 8:1	95:21 96:8 97:6
36:7 40:9 82:21	claim 36:5	coliform 27:14 56:19	98:8
83:7 95:4,5			compliant 39:7
99:12,16,17,22	clarity 20:11 22:13	colleague 6:14	complicated 87:3
changed 7:10 12:1	clean 24:2 27:22 31:5 51:15 55:11	colon 37:19	·
25:5,7,10 64:8	59:12 75:6	colony-forming	comply 16:3 19:15 26:1 27:2
changes 53:18	clear 10:6	77:21	56:21,22 59:19
54:8 82:22 83:1	14:8,9,12,13,16	Columbia 1:17	65:20 66:8
94:2	17:18 20:10	103:17	92:11,15 96:13
changing 53:16	24:22 25:4 27:11	column 90:4	97:11 98:3,16
chapter 53:16	28:12 38:20	comes 25:2 47:21	complying 70:1
characteristics	42:20 44:7	89:17 93:14	92:16
9:19 19:22 41:9	45:2,22 50:4 54:10 56:21 57:8	commencing 1:17	comport 93:18
characterization	61:14,15 68:22	commend 102:2	98:10
92:5	74:6 78:2,15	comment 47:19	comprehensively
Charles 2:4 5:8	83:13 89:19	50:21 73:2 88:12	84:22
check 41:3	90:12 93:21 94:9	93:22 101:13	concede 20:11
chemical-specific	95:3 99:11,13,14,19	commented 51:3	conceded 68:15
76:7	101:4,8,9	commentors 16:17	concedes 15:16

conceivably 36:4	consider 6:12 44:6	59:6 68:17	98:2,3,8,11,18,2
concentration	69:4 88:6,7	cost 28:6 40:8	1 99:1,2
13:19	considered 75:12	74:16	criterion 68:20
concentrations	consistent 23:19	costs 39:16	critical 41:11
56:20 75:2	27:7 62:20 73:14		43:22 44:1 53:1
	89:15 90:19	counsel 2:9,16	67:12 68:1,6
concept 28:19 29:8 33:18	95:20 98:22	5:12,13,22 6:2	•
		47:16 49:19 99:8	criticizing 84:21
conception 8:20	consistently 43:16	103:8,11	crushing 28:6
concerned 39:14	90:10	count 60:12	cumulative 91:17
	constitute 1:11	county 1:4 3:1	
concerning 85:2	Constitution 1:14	5:5,16 6:4 49:3	current 7:12 61:6
concerns 26:13		67:2	71:16 90:8
27:17 30:4,6,7	construction 47:5		currently 73:16
31:4 97:15	68:11	couple 40:10 51:14	cut 25:1
conclude 34:10	construed 19:5	59:14 60:16 61:1	040 23.1
concluded 102:9	contain 69:17	63:3 76:14 78:1	
		course 71:11	
conclusion 52:10	contained 14:6	101:17	D.C 1:2,9,14 2:20 3:6
89:14,17 91:4	contains 8:7	court 11:5 14:18	
conclusive 51:7	contested 83:6	18:18 25:16 26:4	darn 58:16
conditions 41:7,10		37:4 38:21	data 48:7
59:1,2 60:11	contesting 84:3	89:4,6 94:13	51:5,7,11
64:6 68:6 71:16	context 6:20	Court's 88:20	53:12,13 61:17
73:12 98:5	70:2,5		65:14 72:5
	contrary 7:12	cover 47:13 88:21	73:11,12 74:4,14
confirmed 78:4	contribute 74:12	covered 47:13	76:8,22 77:7,14
confused 17:11		covers 38:12	87:8,12,14
Congress 26:8,15	control 65:13,19		90:2,21
27:5,22 28:9	controlled 49:8	criteria 15:15	David 3:2 5:16 6:9
31:20 39:14	controls 14:7	16:4,6 19:15	
47:22	65:13	20:19 22:16,20	days 36:20
		27:3 28:12	dd 32:6
Congressional	correct 7:14 10:7	31:5,9 38:10,15	deal 39:4
58:14	18:8,13 19:20	39:8 41:20	
conjunction 40:15	53:10 69:19	48:1,3,5 51:22	dealing 41:17
connected 22:11	correctly 6:5	56:18 59:6	decade 18:16
	41:16	68:12,16 69:2	decades 93:4
consequences	correlation 33:4	82:8 88:14	
74:18 75:17		90:1,3 93:16,18	decide 51:10 81:10
conservative 68:4	correspond 13:8	95:21	decided 68:2 81:13
76:10	corresponding	96:2,4,6,8,9,11,1	93:9
	. 0	2,14,15 97:7,11	decision 10:22
			4445IUM 1U.22

		, 	
11:7 13:16 41:1	demonstrate	94:19 95:1 100:5	2 14:3,5,16
49:12,13,22	88:14,15	101:8	16:12,14 28:8
50:7,9 51:22	,		31:21 37:18,22
52:1,8,17	demonstrated	determining 7:5	52:14,18,21
60:17,20,21	90:9	12:4 29:20 51:6	53:1,7,8 63:20
61:15,20,21,22	demonstration	devastating 39:15	64:1 65:1
62:13,22 69:14	44:17	development 28:2	67:12,13,15 68:1
72:22 74:6,19	79:11,14,20	·	94:12,20,22
76:21 77:12	demonstrations	deviation 11:8	95:1,5
82:11,18 83:3	73:16	devices 5:11	99:5,7,21,22
91:9 92:16 94:1		dictated 59:1	100:8,10 101:9
decisional 99:19	denial 51:21 66:15 90:14		direction 98:13
		dieldrin 6:16 8:19	101:20
decisions 7:1,11	denied 11:3	9:9 48:11 52:12 53:22 63:19	
9:10 10:21 13:12	deny 51:8 91:9	64:14 65:1 74:12	directly 68:17
48:18 49:16,17	denying 89:20	87:5 91:12	disagree 14:8
50:19 51:1 52:15	, ,		35:13,15 38:21
56:17 61:6	Department	differ 38:3	discerned 49:22
62:19,21 63:1 66:4 69:7 73:10	80:6,7	difference 18:20	
75:17 77:13	depend 57:16	46:16,18	discharge 16:3,13
78:13 88:7 91:4	depending 89:11	differences 9:5	19:22 31:8 37:17 41:9 48:12 55:11
99:21	- 0	ļ	56:2 57:10 70:19
	depletion 7:6	different 13:22 22:8 23:1 24:18	79:15 80:14
deference 28:3	depth 52:19	36:12 44:21 45:1	81:2,6,15 83:16
define 22:5	67:18,19	47:21 53:8,12,14	91:11
defined 17:5	depths 77:9 90:2,4	57:16 61:15	
20:5,15 26:17	describe 24:7	80:13 81:8 82:17	discharged 15:13
55:13 71:1		99:8	discharger 48:1
defines 21:16	describing 29:1		64:21
32:6,20 94:16	designated 98:6	differs 9:3	discharges 48:9,13
ŕ	designation 82:12	difficult 20:8	55:7,8 62:9
defining 23:10		difficulties 73:19	65:20 83:10
24:8,11	designed 16:11 26:10	difficulty 16:19	discharging 92:19
definition 27:15		27:13	93:3
33:21	determination		
55:2,5,9,15 56:6	46:8 73:6 90:17	diffuser 16:10	discount 51:15
69:10 70:1 75:15	91:18 92:10	dilute 39:18	discredit 87:11
definitions 54:20	94:22 95:4	100:13	discretion 24:3
definitive 24:4	101:18	dilution	86:1 92:3
	determinations	8:7,15,18,21	discussed 48:22
delay 88:5,10	15:3	9:2,11	52:12,15 54:3,16
delaying 78:17	determine 14:13	12:6,16,22	73:1 78:18 83:2
		13:1,6,7,10,17,2	13.1 10.10 03.2

	Ι αξ		
99:21	documents 99:20	either 13:2 36:5	33:12 39:1
discusses 52:17	101:8	51:8 89:12	42:18,21 48:6
discussing 26:3	dollars 40:8	else 59:7,9	52:20 53:21
93:20	done 24:6 31:2	emphasis 57:6	54:5,9,16 56:9
	41:2 85:8 94:8	95:18	57:8,21 58:13
discussion 24:16 57:7 59:15 68:10			59:9 64:8
79:21 89:8 94:16	dramatically 12:1	emphasize 47:4 50:10 81:16	68:2,12,15 69:9,13
99:18	dry 82:8,10,12		70:4,6,10 76:5
disinfect 82:5	83:4	employed	79:15 82:1 83:18
	during 24:9 41:8	103:8,11	85:2,9,19
disinfection 6:12	49:3 83:1 93:22	employee 103:10	86:2,18 88:7,15
37:11 43:21	Durr 3:10 5:2	enabled 102:5	EPA-approved
44:4,14 45:7,9,15,18		encompass 33:18	87:9
46:6 78:18,21	E	encouraged 39:3	EPA-
79:1,4,5	earlier 21:9 25:9		recommended
80:8,14,16	37:14,16 53:6	encouragement 28:2	68:19
81:9,19,21 82:1	78:5		EPA's 8:16 26:10
101:6	early 58:21 61:10	Endangered 66:8	56:7,9 58:22
dispersion 16:12	easiest 56:6	enlighten 67:8	66:11 76:11 88:9
dispute 19:17	East 85:11	enormous 74:19	94:13
disputed 19:3	economic 26:12	ensure 59:10	equipment 79:4
disputing 18:1	edge 8:22 13:8	enterococcus	Erick 1:15
disregard 16:4	56:20 95:2	77:22	103:2,15
26:8	100:19	entire 27:21 28:1	error 10:7 11:14
dissolved 8:2	Edward 2:3 5:8	entirely 42:4	15:4 25:8 48:16
51:13	effect 60:19 63:22	entitled 28:22	ESQUIRE 2:8,15
distinction 9:6	64:4 69:10	environmental	3:2,3
64:16	effective 16:10	1:1,12,13	essentially 17:5
distinguish 28:15	effects 58:2 76:6	2:2,7,10,17 5:2,3	28:17 30:13 56:15 59:12
District 1:16	86:19 87:1	26:13 30:7 31:4	63:21 68:15
103:17	efficient 7:22	58:2 70:8 71:10	86:21 87:1 91:6
document 8:17	13:17	72:9 73:5 97:15	100:12
23:19 26:10	effluent 6:15 15:13	environmentally	estuary 56:4
52:17 56:13	31:8 39:19 45:8	57:22	et 64:13
67:17 81:19,20	53:22 62:5	EPA 5:18,21 7:2	
82:11 94:14	63:16,18 83:8	9:7 10:8 14:21	Eurika 3:10
100:1	85:10 91:13 93:4	15:12,17 16:5,18	evaluating 41:6
documented 99:15	95:2	19:5,10 20:6	event 101:21
		24:3,16 28:3,13	

	1 42	, , , , , , , , , , , , , , , , , , ,	
everybody 21:20	14:11	49:4,12,13	99:1,2
28:11 31:6 97:8	excuse 7:22 26:12	53:7,8 65:18	feds 30:15
98:19,21 100:12	31:17 42:20 45:3	71:8 85:2 90:21	feet 64:4,7 70:19
everyone 5:13	90:4	95:20	, in the second
15:16 44:9 95:22	exist 17:7 41:11	factor 8:8,18,21	felt 97:16
everything 94:6	46:3 92:9	9:12 12:17	fewer 90:22
evidence 75:1,3,5	existence 31:18	13:1,6,8,10,22 14:16 23:9 52:14	field 85:7
76:7 93:5 100:2	existing 73:12,16	53:1,7,8 63:20	fighting 93:6
evolved 81:13	92:21	64:1 94:12,20	figure 52:21 67:13
exact 60:3	exists 76:4	95:5	figuring 67:14
exactly 11:22	expansively 26:20	99:6,7,21,22	Ŭ Ŭ
18:21 20:9 21:19		100:8,10 101:9	final 9:10 13:12,16 46:10 49:2,16
39:3 53:11	expedition 88:12	factors 9:2 14:5	52:15 62:9,13,20
80:5,21 91:8	expires 103:21	53:2 67:14 68:1 73:1 100:7	66:4 69:6 77:13
example 7:19 9:9	explain 41:12		78:12 82:11 83:3
13:15 18:18	78:11 86:6 95:17	failed 48:10,12 83:17 84:6	89:6 99:21
19:21 50:1,20	explained 78:13		finality 88:11
51:12 53:13 59:4 65:15 71:19	explains 57:11	failure 73:6 83:11	financially 103:12
72:14 73:19	99:15	fair 92:5	finding 53:21
74:11 76:2 77:20	explanation 11:7	fairly 49:22	75:11 76:15,20
81:8 85:18 91:20	27:7 93:17	fall 35:5	findings 8:12
94:16	101:21	falls 37:21	74:11 78:4 89:1
exceed 16:13	explicit 65:7 69:18	favorable 41:1	91:10
37:17,22 91:11	expressly 55:14		finds 48:4,16
exceedance 23:10	extent 9:1 14:2	features 29:19	fine 47:11
71:14 72:4 92:10	26:5 52:7 61:19	fecal 27:14	finer 50:13
exceedances 6:13	63:8 90:4	federal 7:3 16:3	first 6:4 27:21
46:2,3,4 49:7,14	extinction 8:1	19:15 20:19 22:16 28:12	29:8,9,13 30:9
50:4 51:2,6 52:9	extra 70:16 86:10	30:13 31:9,19	55:22 84:16
77:18 84:4 89:9,16,20		32:3 38:10,15	88:12 93:13
90:2,5,8,13,22	F	39:7 41:20	fish 71:20 74:1,2
91:17,19	facilities 26:22	43:13,14,18,19	75:2,7,9
exceeded 63:10	29:3	93:8,15,18	fishing 74:11
70:1 72:15 90:1	facility 44:22 45:1	95:6,9,12,16,21 96:2,3,6,8,9,11,1	fit 33:20 35:3
except 7:6 91:6	62:7 79:8	8,21 97:6,11	fits 33:22
94:6,11 101:4	fact 14:14 21:2	98:1,2,3,8,9,10,1	
exception 12:13	23:22 32:5 39:11	2,13,16,18,20,21	five 77:1
	46:3,7,19 47:6		

five-year 92:21	gathering 72:5	ground 49:13,21	handy 13:4
fix 40:4	general 2:16 6:1	66:14,15	
	11:14 22:16	guess 14:17 22:12	happened 10:22
flea 83:15,16	23:21 38:22	35:7 39:13 48:19	happy 13:14 17:1 95:19
flip 60:14	47:19,20 51:9	75:20,22	
flow 100:17	98:20	guidance 42:13	hard 20:13 34:6 73:22
focus 61:7 71:11	generally 15:14	76:5 83:18,19	harm 70:8
focused 42:9 67:10	31:8 38:1	guidances 42:14	71:9,10,11,14
101:2	39:7,12,22 43:15 77:5	Gulf 85:11	72:9 73:5,17
folks 68:8	geometric		93:5
foregoing 103:3,4	76:14,16	Н	harmonizes 43:16
forth 24:10 29:18	77:1,3,7,10,16,2	h)(2 6:11	haven't 37:5 87:5
48:1 101:14	0 78:5,9 89:11	69:16,17,20 70:2,14 71:14,15	88:6 92:8
forward 22:4,17	gets 76:2	70.2,14 71.14,13	having 12:19
44:8 62:2 65:19	getting 45:19 54:3	74:6 75:4	16:19 34:5 67:16
79:9 90:19	71:7 88:5 99:4	h)(2)'s 71:7,11	100:10
fragile 83:21	ginned 47:6	h)(9 15:6,10,21	Hawaii 23:16
Francisco 2:12	given 20:12 46:4	16:2 18:10,16	28:18 29:4 40:14 59:17 60:2,9
frankly 50:2	55:12 85:17 92:5	19:2,8,11 20:16	64:5,20 66:1
54:12,16 64:5	gives 16:15	21:3,9,19	68:21 69:5,7
67:15 68:2,19 69:13 76:22	giving 9:16	22:14,15 28:13 31:7,10 32:22	70:17,18,20 80:6
78:17 83:2 84:1	goal 8:21	33:4,7,8	83:19 86:1,5 87:2 89:22
frequent 77:18	gone 62:12 88:19	35:11,15 39:1,6	
fresh 56:3 83:15	govern 84:13	46:22 56:10	Hawaii's 31:3 59:15
85:11	95:16 96:22	57:12 60:19 69:17	Hawthorne 2:11
friend 94:14	grant 48:6 51:8	93:13,14,15	
fulfill 31:5	66:11 88:16 92:3	95:11,20 96:7	head 58:21
full 57:6 101:20	97:19	97:5 98:16 99:2	headquarters 56:9 85:19
	granted 36:3	H.1.2 52:17	
fully 25:3 30:5 93:18	44:11 48:9 52:7	H0123 52:17	Health 80:6,7
fundamentally	92:20	H1-189 45:4	hear 5:13,19 23:15 30:17
10:19	granting 7:2 93:11	H-12-1172 7:20	
future 44:12	great 42:9,10	H12-1228 45:12	heard 101:13
92:12,15	75:18	H-2-24 11:5	hearing 53:6
	greater 90:7	hand 89:19	held 1:12
G	green 80:16	папи 07.19	help 18:6 72:7
			1

helpful 102:4	30:3 46:9 47:8	I'll 56:7 87:3	85:22 91:7
helping 67:3	48:22 53:19	I'm 5:15,18,21 6:9	included 7:22 54:8
helps 22:5	88:18 91:14	9:21 11:16 13:13	79:3 85:17
<u> </u>	Honor's 9:22	16:19,22 17:11	includes 8:4 28:13
hereby 103:3	27:18 36:18	23:14 25:9 29:3	94:11
here's 30:2	Honouliuli 1:5 5:6	30:17 32:8,14,16	
hereto 103:11	6:13 7:19 9:10	33:15 34:5 36:4	including 39:2
herring 85:5	13:14,16 44:13	40:18 41:2,15	63:5 73:2,13 96:1
_	45:5,9,13,18	42:4,5 43:1 45:3	
HI0020117 1:6 5:7	48:12 49:5,6	46:10 47:15	inconsistencies
HI0020877 1:6 5:7	52:16 60:17,20	53:10,15 57:12 62:18 64:11,16	56:8
higher 96:5,6	62:3 76:16	66:14 67:6 70:12	inconsistent 35:14
97:22	78:20,22 79:7,17	72:6 74:9 79:22	49:15 59:21 60:8
Historically 21:18	80:17 82:9 84:7,19	80:20,21 82:14	98:11,20
35:10	91:5,7,20	85:19 92:17	incorporate 10:5
history 20:13		95:19 96:16	incorrect 44:8
22:10	hundreds 40:7 78:1	100:4	incurred 39:16
26:15,18,19		impact 76:3	
32:13	hurt 36:8	implement 18:10	indicate 41:10 45:6 49:17 84:4
hold 34:16	hybrid 30:13	-	i
	hypothetically	implementation 44:13	indicated 11:1
honest 20:10	34:9		21:8 51:1 60:13
Honolulu 1:4 3:1		implemented 19:8	indicating 45:15
5:5,17 6:4 11:22	I	imply 101:19	indigenous
67:2 93:3 94:4 96:10	i.e 12:8 41:19	important 6:20	71:12,20
	I'd 6:18 74:21	8:16 18:12 26:6	individual 77:8
Honolulu's 49:4	75:22 84:17	30:3 43:22 75:12	indulgence 88:20
Honor 5:15 6:7	88:22	77:11 89:5	9
7:18 9:20 10:15	identical 91:6	impose 97:21	inference 90:14
13:11 14:18 15:9	-	improved 80:14	inherent 14:5
16:1,22 18:11,21	identified 8:3 10:4 47:3	81:6,15	28:10 73:18
21:4,7 22:12		inaccurate 53:9	initial 8:14 12:6
25:15 27:16,19 29:7 31:12 38:2	identifies 7:21		16:12,14
39:10 40:18,20	17:10	inadequate 30:12	31:11,14,20,21
41:16 42:5,17	ignore 22:22 45:22	31:3,4	32:6,9,21
43:10 45:11	46:7	inaudible 34:17	37:18,22
46:19 95:19 97:4	ii 19:13,19 22:7	38:7 42:5	52:18,21,22 54:9 63:20 65:1
98:12	25:17 37:14,21	include 29:14	67:12,13,14 68:1
Honorable 5:8	42:14 43:8,9,12	31:16 45:18 46:5	69:18 95:1
Honors 6:9 9:8	69:1	56:3,4 84:14	
11011013 0.7 7.0			

	1 46		
injured 37:3	45:6,7,14,16	60:2,4,5,6 64:20	43:1,4,6
install 79:4	46:5 50:2 60:21	66:11	44:16,21
	62:3 78:21	67:10,11,18	46:10,13 47:9,12
instance 9:4 29:9 30:9 98:17	79:2,3,7,20	69:19 70:14	49:10 50:6,13
	80:17	71:16 72:19	51:4,18 53:3,5
instead 8:9 18:20	81:14,17,18	73:22 75:14 76:2	55:12,17 57:3,11
67:16 95:6 98:14	84:5,19 89:2,6	79:20,21 80:12	58:10 60:1,13
instrument 40:9	91:5	81:5,6,19	61:7 62:1,14,17
insubstantial 74:9	isn't 27:1 39:5	83:2,12,13	63:12 64:11,15
	55:7 84:3	84:1,2 86:1	65:3,11,21
insure 22:15	issue 6:19,21 8:14	87:2,19 90:12	66:18,20 67:1,6
intended 9:12	10:16 12:17,21	91:5,16,17	68:7 69:15
13:10 18:10 27:9	16:19 23:9 24:19	92:9,12,20 93:21	70:12,22 71:6
intent 58:14	27:5 28:7 35:16	94:21 95:6,16,20	72:3 73:3 74:8
	48:22 50:21	96:4 98:11 99:19	75:13 79:6,17
intention 79:10	52:11 63:6 65:1	101:7,9	80:1,15 82:7,19
intentionally	68:3,11,18 74:9	I've 100:20	84:9 86:8 87:16
31:16	78:18,19 93:21		91:22 92:14 95:8
interest 88:11	101:2,3,18	J	96:16 97:3 98:4 99:4 101:12
interested 103:12	issued 40:22 62:20	January 81:20	
	64:3	Judge 2:3,4,5	judges 5:8 68:7
interfere 48:14	·	5:12,20 6:3 7:14	judgment 15:11
inter-lab 84:12	issues 6:10,15,19 47:12,19 49:1	8:11 9:15 10:10	44:10 45:21
interlaboratory	54:3 66:16,21	11:12,18	51:5,10 57:15,21
85:8,12,15	68:8 76:14 88:21	12:16,18 13:5	70:7 72:12,20
· ·	91:3 93:20	14:12 15:5,18	75:22 92:13 93:1
interpret 37:5 54:13	101:14,16,22	16:7 17:11,12,15	June 103:22
	102:5	18:6 19:4,7,18	jurisdictions 28:6
interpretation		20:6,21	39:17
11:11 16:18	it's 6:20 8:16 9:21	21:1,5,8,14,22	
33:19,21 34:3	10:6 17:18	23:2,6,12,16	justification 11:8
36:1,8 56:7 88:9	18:3,8,20 19:3 20:8,13 21:14	24:12 25:8,20	justified 51:21
interpreted 26:20	20:8,13 21:14 22:2,18 25:11,18	26:14 28:18	
36:12 47:7 55:21	28:19,21 29:11	29:11,12,16,21	K
56:10 58:13	30:6 35:12	30:14,19	Kathie 2:5 5:8
interprets 54:9	36:11,12 37:6	31:10,13 32:5,9,14,18,21	key 100:18
invalid 35:18 37:1	40:6 41:2 42:8	33:3,9,14,16	kills 75:8,9
invalidity 36:16	43:4,18 44:11,21	34:9,13,17,20	· · · · · · · · · · · · · · · · · · ·
Ĭ	45:21 46:6 51:15	35:2,17 36:11,15	kinds 81:8
irrelevant 66:12	52:14,17,18	37:12,16 38:6,8	knew 13:6
Island 1:5 5:5 9:10	54:21 55:20 57:8,14	39:10 40:10,13	81:16,22
44:14,19	37:0,14	41:4 42:2,6,11	•

	1 48		T
knocking 34:7	49:1 54:3	limited 15:18,21	86:4,20
	legislation 69:5	21:9 28:20	major 27:4
L laid 79:9	legislative 26:14,18	limits 8:12 line 61:11 72:6	manual 24:1 84:13 94:18
language 12:3 16:8,21	legislature 69:7	87:8,15 88:4 lines 76:7	marine 76:6 84:2 85:6
18:9,10,13,15,22 21:3,19 22:1,2	Leith 2:8 4:4 5:18,21 47:15,16	listed 14:15	matter 23:21 63:8
24:13,15,22	49:16 50:8,16	literally 74:16	95:15 98:20
25:4,9 26:6	51:9 52:1 53:4,10 55:16,19	little 12:17 52:13	mattered 63:20
27:6,10 33:17 34:21 35:4	58:7,12 60:2,16	59:5 69:3	matters 61:4,12
36:6,20 37:3,16	61:13 62:18 63:15 64:18	86:6,10 87:2 94:4 95:10	maximum 41:7,8
38:20 46:20,21 68:13 88:9 91:8	65:10,12	LLP 3:4	may 6:9 9:18 27:16 39:5 41:11
99:20	66:3,19,22	local 98:5	49:1 54:10 62:21
large 77:19	67:5,10 68:10 70:10,13 71:3,15	located 16:11	64:19 65:15,18
larger 89:13	72:11 73:9 74:20	logic 57:12 58:1	72:13,18 73:21 80:5,20 83:3
last 37:12 40:11	75:21 79:13,22	69:19	94:3
78:3 93:19	80:4,19 82:16,20 84:16 86:12	logical 22:7	maybe 25:8 47:18
lastly 39:9	87:21	Loma 87:19,20,22	51:14
late 62:9 87:14	length 42:9,10	88:3	McCutchen 3:4
later 36:9 89:10	52:15 54:4	long 35:18 47:7 92:1	mean 12:20 18:2
law 7:12 11:15	lengthy 102:5,6		25:16 27:11 33:1 36:9 42:2 54:9
65:13	less 25:3 61:17,18	long-standing 7:10	57:20 59:5 67:9
laws 66:5	64:5 68:20 96:21	long-term 13:17	71:10 72:4 76:16
lax 98:14	lessening 39:19	looser 96:21	77:1,3,7,10,20
lead 91:15	lesser 90:3	lot 47:17 54:16	89:11 99:14
leaning 101:19	Let's 34:9 96:20	61:18 66:16	meaning 21:11 56:2
least 15:22 22:6 39:15 41:22	level 51:4 57:17	68:20 72:5 74:16	meaningful 10:19
51:19 54:1 70:5	life 48:15	77:14 79:16 84:1 87:8,13 88:4,8	means 26:3 34:13
71:1 99:12	71:20,21,22 76:6 light 7:22 8:1 15:3	100:15 101:14	42:3,13,15
leave 87:3	80:16 86:6	lots 81:7	55:3,10 57:9
leaves 8:6	likelihood 37:6		72:9 76:14 77:8,9,16 78:5,9
led 71:1	likely 90:5	M	meant 55:21 56:1
legal 10:7 15:4	limitations 55:13	Mail 2:19 main 50:16 52:3	88:10
		mam 50.10 52.5	

		· · · · · · · · · · · · · · · · · · ·	
measure 9:12,13	84:10,14,15,16	60:3,9,10,22	narrowly 10:18
43:12,14 57:22	85:16,17 87:9,17	63:4,7 65:3,5	21:12
65:9	middle 60:5	69:18 70:2,6,9	national 56:9 61:4
measured 8:9 10:4	milliliters 77:22	93:11,17	native 84:2
63:16,18 95:10		95:2,3,6 96:1	
measurement 8:22	millions 40:7	97:12,14,17	NDPES 5:7
17:13 43:7	mind 16:6	98:22 99:13 100:5,18	nearly 87:6 89:15
measurements	30:15,20 42:12	ŕ	necessarily 22:4
8:10 11:3 17:20	46:15 100:14	model 20:10 22:13	necessary 39:6
	minds 11:22 30:15	53:15,20	56:20
measuring 13:8 29:19 100:11	38:20	modeling 65:2	
	minimum 25:6	models 52:20	negative 37:7
mechanism 88:10	39:15 101:7	53:14	neither 103:7
mechanisms 39:4	minute 56:8 88:2	modification 16:9	nice 99:20
meet 48:2,10,12	minutes 6:5,8	modified 12:14	ninety 27:8
49:8 55:8 57:18	54:11 86:9,11	17:9 82:12,14,21	nitrogen 8:5
70:8 73:6 74:17	mirror 14:3	93:7	65:4,6
78:10 80:14 81:3		moment 71:7	89:2,8,16,18
83:11 90:16,19 92:1 98:5	mirrors 8:22		90:1,3,11 91:13
	misspoke 80:21	money 74:16	noncompliance
meeting 56:10 57:17 59:5	mistake 87:22	monitoring	71:9 72:8
	mix 39:18	45:6,14 50:3 63:17 64:22	nor 42:9 103:8,11
meets 48:5	mixed 73:11	77:15 90:8	normal 57:18
mention 44:4 69:3			80:18
70:15	mixing 6:10,19 7:3	month 73:21	
mentioned 57:3	8:15,20 9:1,6	77:2,5,16	Northwest 1:14
64:2 65:4 85:4	10:9 12:12,21 14:14,20,21,22	months 69:6 72:5	2:18 3:5
merits 101:21,22	16:5 22:19	moreover 50:19	Nos 1:6 5:7
met 7:21 8:4 21:18	24:2,5,6,8,11	morning 5:12	Notary 1:16
49:18 51:10,17	26:9	motion 6:16	103:1,16
52:2,4,5,6,10	28:9,15,19,21,22	mounds 48:7	notes 82:11
59:1 62:5,8,16	29:1,4,9,15,17		nothing 16:15
63:2 68:5 70:19	30:5,12	move 66:20	58:11 85:16
71:22 72:4 74:7	31:3,11,14,17,19	multiple 39:17	notice 1:13
75:11 77:4	,20 32:1,2,3,7,9,22	48:8 76:7 83:17	
78:3,14,15 80:3	33:6,11,12,18	multistep 26:11	November 1:10
84:8 88:14,15 96:19 97:3	39:2,4 40:1	_	NPDES 1:5,6
	43:14,17 54:9	N	numerical 98:1
metals 27:14 57:7	57:13,20	nail 42:11	numerous 89:15
method	59:15,17,18,20		

nutrients 56:19	103:3,4	41:12 64:20 70:3	86:2 87:9 99:8
63:5 64:13 82:9	order 27:1 48:2	particularly 74:10	permits
	58:22 66:6 79:14	parties 99:6 102:2	63:4,8,13,21
obligation 44.6	80:7,9 88:13	103:9,11	64:3 65:5
obligation 44:6	96:13	party 5:14	85:18,20 86:5 97:20
obtain 27:1	organism 84:2	pass 86:7	
obviously 35:16	organisms	passed 69:6,7	permitted 6:21 15:12
101:15	83:17,20,21 85:6	83:16	
occupy 85:7	others 8:5 40:3	past 84:6 86:5	permitting 31:1 40:3
occur 43:7	64:15	path 79:9	persisted 90:3
occurred 20:9	otherwise 26:22	-	
61:9 65:6	39:12 41:22 45:17,22 89:10	Pennsylvania 2:18	pH 17:10
occurring 74:15	91:7 96:6 103:12	people 56:1	phones 5:10
occurs 17:13	ought 35:9 39:19	per 77:5,6	phrasing 74:15
ocean 56:5 85:7	78:11 83:19	percent 84:7	physical 19:21
oceanographic	outcome 103:12	perfection 92:12	52:22 65:2 67:16
41:10	outfall 16:10 52:19	performing 59:19	70:18 93:5
Office 2:16 5:22	67:19,21	period 91:1	picture 95:13
6:1 47:16	override 65:7	92:20,21 93:22	piece 26:19
officer 103:2	overriding 48:21	periods 41:7,8,9	pilot 81:21
officially 54:5	S	permit 1:6 5:6	pipe 8:10 100:12
85:18	oxygen 7:6 8:2 51:13	7:18,20 8:7 9:4	plain 38:19
okay 21:5 40:5	31.13	10:4 12:14	plan 80:12
42:6 60:16 68:9	P	13:1,4 14:1,6	planned 81:7
86:12 96:20	p.m 1:17 102:9	17:9 23:7,12,13,17	plant 1:5 5:6
old 82:13	Pacific 85:6	25:9 28:22	45:8,10 76:16
ones 14:15 26:2	page 4:2 13:16	29:1,15 30:9	80:10 81:10
82:13 83:6 92:7	54:6 91:5,6	39:22 44:12	plants 6:21 49:5
on-off 40:7	pages 1:11 45:3	45:2,5,12,22	51:13 59:19 87:7
operate 6:22	52:17 74:10	47:21 53:7 55:6,8,22 58:18	pleadings 31:3
opinion 89:7	84:18,19 89:7	59:8 60:18	please 5:10,13 6:9
opportunity 30:11	paragraph 60:6	63:7,22	pleases 6:18
opposed 14:4	paragraphs 25:13	65:7,10,12,15,17	•
31:21 69:16	parameters 7:21	,18 71:1 78:20	plume 100:16
86:15	8:3 12:6	79:2,7,17 80:5,20,22 81:11	PMSD 86:19
oral 1:11 4:2 5:4	particular 40:16	82:9,13,17,20	point 10:12 11:21 14:2 18:12

		C 10	
22:14,15 28:4	15:22 17:1	present 3:9 75:14	proceedings 102:8
29:12 31:6 34:3	24:14,17,18 25:6	presented 10:1	103:7
37:1 39:10 40:11 41:2 46:19 47:9	44:3 60:15 66:10 71:13 76:9,12	preservation	process 24:10
50:13 51:12 58:1	98:7	101:18	26:11 28:1,4,17
70:16 77:11 78:7	positive 41:3 44:15	preserved 101:15	29:7,10,19 30:8 31:1 41:1 55:15
79:18 86:20 91:1	45:14 46:5	presiding 5:9	70:20,22 78:17
93:2 94:13	- 1-	•	79:12 97:19
95:8,14 97:8	possibility 29:17	presumably 21:10 51:6 57:18,20	processes 30:10
100:10,22 102:7	possible 12:13 22:19 59:3 99:9	70:6	40:3
pointed 53:19		presupposes 45:16	produce 79:19
59:17 63:6 73:18 77:10	possibly 37:1,8		84:11
1	potentially 27:2	pretreatment 40:5 54:21	professional 72:20
points 27:20 63:3 86:2 87:18	28:5 39:15 40:7		75:22
	POTWs 27:1	pretty 27:10 43:16 53:15 56:21 57:8	program 45:6,14
policy 10:20 56:9 61:5 94:2	practical 48:22	68:22 86:4	• •
	49:1 54:2		promulgated 58:13 59:9 85:19
pollutant 23:6 28:20 40:6	preamble	prevail 35:16 91:2	
57:13,14,16,18	16:17,18,21	previously 12:9	promulgation 64:9 85:10
70:3 87:6	24:13 54:7	primary 39:18	
pollutant(s 17:8	preambles	59:19 73:9	proper 33:2,6
⁻	57:2,3,5 58:21	prior 17:6	proposal 54:10
pollutants 7:8,16 9:13,18 10:3	76:13	63:3,4,7,8 65:6	80:11 82:2,4
12:13 14:7,11,14	precedence 7:4	probably 22:6	proposals 88:8
15:7 17:16 18:4	12:4	56:11 71:4 72:18	proposed 54:7
23:3,8 34:1,22	precise 74:22	77:11	57:5 79:1,5 81:2
52:11 56:19	precisely 16:6	problem 33:19	91:11
58:3,10	22:20 26:12	35:10 38:18 40:1 97:17	proposing 66:11
63:13,14,15,17 64:17,20 71:2	31:22 39:17		protect 31:4 75:5,8
94:10,11 101:4	predicate 37:18	problematic 39:5	83:20
population	predict 86:18,22	problems 83:9	protected 58:17
71:12,20	90:16	87:13	59:12
Port 87:19,20,21	predictive 15:11	procedure 23:18	protecting 69:22
88:3	44:10 45:21	24:10 86:20	protection 1:1,13
posed 67:2	75:14 93:1	procedures 24:8	2:7,10,17 5:3
1 -	preliminary 48:21	29:14,16 30:21	71:18 72:2 76:10
posited 93:16 99:9	premise 38:3	proceed 6:4	protective 30:7
position 7:12	prepared 53:11	proceeding	48:15 58:22
11:8,9 12:1,9,10	- *	47:20,21	70:16 72:17

protocol 84:11	44:10 46:14,15	quoted 86:17	rebuttal 4:6 6:6,8
provide 16:11	47:2 48:10,14	quotes 11:9 12:3	47:13
provided 40:14	49:9,17 50:9,14,17	quoting 32:14	recall 6:20 26:18
provides 13:20	55:1,2,3,6 56:11		received 69:14
provision 17:21 36:19 37:9 38:2	57:6 59:6,11 61:17,18 62:4 68:12,14,16,21	R radius 67:20	receiving 13:19 82:12
41:13,17 67:8	69:2,8,10,11,12,	raised 36:18 50:20	recent 90:22
provisions 24:6 59:16,18 60:9,10	15,20,21 71:17 72:1,17 73:7,13	68:18 78:19 85:1 101:16 102:1	recently 62:2 recognize 28:5
proxy 99:2	74:5	range 57:6	60:10
public 1:16 50:21 73:2 103:1,16	75:6,8,10,14 76:3 77:20 82:8,10,22 86:22	rather 7:3 13:9 56:5 65:2	recognized 31:22 88:11
published 85:9,14	87:2 89:22	rational 27:1	recommends 24:3
purpose 38:22	90:7,10 91:11	re 1:3 5:4	reconsidered 15:3
58:4,5	92:2 93:7 97:21	reach 101:22	record 5:14 6:17
purposes 57:19	quality's 58:16	reached 58:1 70:9	7:20 9:8 10:6,13
65:11	quarter 77:6	reaction 78:22	40:13,20 45:12 49:6,15 55:17
pursuant 1:12 puzzlement 12:18	question 9:22 11:21 13:9 15:1 16:3 22:21 25:3 26:8 27:18 31:7	reading 10:17 17:2 33:2 37:9 43:9,15 45:3	49.0,13 33.17 66:1 81:19 91:18 94:17 99:14,15 100:2 103:7
qualification	33:11 36:18 37:13 38:4 39:7	87:22 reads 75:18 76:11	recording 5:11 recourse 97:18
62:6,12 qualifies 80:10	41:4 42:18 43:6 46:11 52:13 53:2	real 39:6 73:4 86:18 87:1	recreation 48:15
qualify 48:17	54:4 58:7 60:7,15 64:15	realize 88:19	recreational 71:12 74:11
quality 7:5 12:5 15:16 17:4,7,21	65:21 66:18 67:1 72:12 82:7 87:16	really 17:11 42:16 53:11 57:22 61:4	recurrent 83:10
18:2,15 19:1,14 20:2,4,18 21:17	89:3 101:18	66:12 75:19 76:20 83:19	red 85:5 86:6 reduced 103:6
23:22 24:9 25:18 26:1	questions 40:10 46:8 63:11 68:9	88:16 95:15 reason 28:14	refer 35:20 41:18
28:3,10,14,16 29:10,14 30:8,22	85:1 101:16,19 quite 61:3 77:18	30:10 44:8 45:19	68:14 89:6 reference 16:9
31:18 32:4	80:8	53:12,13 61:21 78:16 97:13	17:3,5
34:11,14,19 38:5,11,13,14	quotation 54:6	reasonable 38:20	18:3,14,22 19:13,16
41:9,18,21 42:19,22 43:11	quote 7:4 12:4 24:1 58:20 91:10	reasons 48:8 53:21 99:9	20:1,4,14 21:21 25:17,19,22

	1 46		
28:12 35:12	97:20,21	58:13,17,18 59:9	relate 69:16
38:5,9 47:1,2	region 2:9	60:11,19 61:2,4	related 6:15 67:2
62:11 69:18	5:19,21,22 6:21	64:20 68:4,22	103:8
93:14	7:10 9:3,11	70:11,14 73:14	1
referenced 15:6	10:8,10,16 11:22	76:1,12 79:15	relates 101:3
references 27:13	12:9 15:11,15	80:1,2 82:3	relation 58:5
1	22:17 23:20 25:8	regulated 75:18	relative 103:10
referred 62:15	28:11 30:4,11,19		
81:12 91:15	32:6,21 35:9,21	regulation	relatively 90:22
94:15 100:2	39:4 40:4,22	16:8,15,21	relevant 8:15
referring 7:19	42:10 44:2	17:2,3,6 25:10	42:18 43:5 57:15
62:15,19 67:12	47:7,16 48:4,7	32:17,19	69:14 84:1
100:4	50:10,16,18	35:14,18 36:1,16 38:19 41:13	reliance 28:13
refers 19:21	51:15 52:4,8	42:3,8 43:2 47:5	relied 73:5
46:13,14	53:8 56:8 60:8	,	
68:12,15 93:15	61:2,5,16,19	regulations	relies 23:20
,	62:4 66:14,15	11:11,19 12:11	relieved 44:5
reflect 9:5,13 93:7 96:1	72:21	17:19,20 18:19	relying 89:19
	73:10,11,15	19:8,12 27:8	, ,
reflected 11:10	74:17,22 75:19	36:22 46:21 47:7	remand 78:11,16
95:5	76:11,22 77:4,6	50:11 60:3 90:6	88:5 89:3 91:2
reflecting 41:7	78:11,13 79:10	93:15	101:11
reflection 29:4	82:4,11 84:22	regulatory 11:13	remember 8:16
	86:3,16 87:8,12	22:13 25:4 26:6	12:19,22 80:4,8
reflects 11:7 14:3	88:2 92:2 93:8	36:6,20 37:3	83:2
40:14 96:3	94:3 95:5,22	Reich 2:3 5:8	remind 25:16
98:2,18	97:16 99:9 100:1	12:16 13:5 14:12	
refusal 6:12	101:1	15:5,18 17:11	reply 78:8 88:2
refused 24:14	Regional 2:9 5:22	18:6 19:4,7,18	Reporting 1:15
reg 27:10 65:14	47:16	20:21	represent 5:14,16
Ü	regions 48:16	21:5,8,14,22	representing 5:22
regard 8:14 9:8	56:16	31:10,13 33:9	
14:10,19 26:5	region's 6:12 15:2	37:12 38:6,8	request 69:4 89:21
33:13 39:10,11	25:6 49:12	42:11 43:1,4	90:14
41:5 74:13	50:7,8 60:14	51:4,18 53:3,5	requested 15:8
89:1,16,18 91:2	65:8 74:6	57:11 58:10	17:9
94:10,13 96:2	76:8,15 81:1	69:15 70:12,22 73:3 99:4	requesting 12:7
97:9,22 100:7 101:5	92:1 99:7		
	regretted 93:11	reigned 95:12	require 55:7 56:10 90:6 96:7
regarding 65:22	J	reiterate 59:16	
74:4 86:13	regs 27:14 54:7,17	88:12	required 10:8
regardless	55:6,8 56:14	reject 33:20 34:2	12:10 35:22
	57:3,5	10j000 33.20 3T.2	44:13

	8		
45:8,10,15,20	result 8:21 25:4	27:16 29:6,13,18	34:18 38:12
46:4 59:11 78:21	40:2 43:10 46:5	30:1,17,21	saw 55:22
79:1 85:8,13	results 13:18	31:12,15	
89:4 90:18 94:8	44:14 45:6,13	32:8,11,16,19	schedule 79:3
requirement 17:18	49:2 77:22 84:11	33:1,5,10,15	scheme 11:13
27:4 44:17 46:1	92:10	34:5,12,15,18	scope 33:20
58:19 59:4 70:16	review 10:19	35:1,7,19 36:14,17	seasons 41:10
81:2,4	rigor 75:16	38:1,7,9	second 41:4 58:5
requirements		40:12,17 41:15	
25:12,14 26:22	ripe 36:5	42:4,8,16 43:3,9	secondary 6:22
39:12 54:22	rise 35:5	44:19 45:1	7:8 26:16 57:14,15 58:6,11
63:22 65:7,12 81:3	roaming 97:19	46:12,18	59:10 62:5,10,11
	ROBERT 3:3	47:11,14 78:19	, , , , , , , , , , , , , , , , , , ,
requires 15:10	romanette 25:17	88:18 92:4,17	section 17:6,8,18 22:8 45:4 54:22
44:9 78:21 95:21		95:19 97:2,4 98:7 99:18	66:5 67:3
96:7,14 97:5,7 98:8,19	room 16:16	1	Sections 6:11
 	RPR 1:15	sample 13:18 74:2	
requiring 58:22	rule 64:9	77:5,6	seeing 12:19,22
reserve 6:8	rulemaking 20:7	samples 73:22	seeking 12:14 34:2
reserving 6:6	61:9	74:1 77:2,15 87:12	39:11
respect 21:15	rulemakings 61:8		seem 62:10 78:8
22:18 24:21		sampling 73:19	80:15 83:5
28:14 65:3,8	S	San 2:12	seemed 79:19
66:2	S.19.32 81:19	sand 1:5 5:5 9:10	95:14
respectfully 14:8	S.19.33 81:21	44:14,19	seeming 76:20
respond 9:22 34:7	S02-4184 94:17	45:6,7,14,16	95:17
49:10 91:22 94:5		46:5 50:2 60:21 61:11 62:3 78:20	seems 22:4 32:9
responded 84:22	S-2-4161 23:22	79:2,3,7,20	33:3 37:18 39:13
responds 24:17	Salmons 3:2 4:3,7	80:17	74:9 75:16 99:6
response 11:4	5:15,16 6:7,9	81:13,17,18	sense 16:4 39:20
76:19	7:17 8:13 9:20 10:15 11:16,20	84:5,19 89:2,6	96:15
84:14,17,18,21	13:3,11 14:17	91:5	sensitive 83:22
85:4 86:3	15:9,20 16:22	satisfaction 18:14	sentence 80:19
responses 101:1	17:14,17 18:11	96:15	separate 101:2,3
responsive 13:3	19:5,10,20	satisfied 17:22	- ´
·	20:8,22	18:5 19:1 20:3	session 5:4
rest 18:5 100:6,7	21:4,7,13,15	96:11	several 27:18
restate 64:12	22:10 23:5,8,14,18	satisfies 22:19	share 12:17
restrictive 57:17	24:21 25:15,21	satisfy 20:19 26:2	Sheehan 2:4 5:9
	21.21 23.13,21	J	

	г	<u></u>	
8:11 10:10	situations 41:11	44:4,13 47:22	12:5 15:17
11:12,18	six 77:1,15	49:21 52:2 56:17	17:4,7,22
17:12,15 20:6	ŕ	59:18 72:22	18:3,15 19:1
23:2,6,12,16	slightly 50:13	97:11	20:2,4,18 21:17
29:11,21	89:13	specified 13:2,22	23:16,22
30:14,19	small 89:12,19	63:12 82:10	24:5,7,14 25:18
32:5,9,14,18,21	90:12	87:9,10	26:1
33:3 35:17	so-called 60:14	specifies 23:20	28:4,11,14,16
36:11,15 43:6	solids 7:7 12:15	<u> </u>	29:14 31:18 32:4
44:16,21 50:13	17:10 41:19 94:7	specify 53:7	34:11,14
61:7 62:1,17		spent 57:4	38:11,14,15
64:11 71:6 72:3	someday 36:7	split 87:12	39:1,2 41:19
74:8 75:13	somehow 100:13	· 1	42:19,22
79:6,17 80:1,15 84:9 87:16 95:8	somewhere 80:9	spoke 16:18	46:14,15 47:2
96:16 97:3 98:4		square 16:7 24:12	48:10,12 49:9,18
	sorry 11:16 23:14	34:3	50:9,14,17 51:10
shellfish 71:20	30:17 32:8,16	squared 16:20	52:2,6,10 55:1,3,6,10,13,2
shift 95:17	33:15 85:19	· •	1 56:2,3,4,11,18
shooting 100:20	92:17	squares 41:13	57:6,9,14,16
	sort 66:17 92:22	stand 102:7	58:15 59:1 61:19
shore 64:5,7	97:19	standard 17:7	62:4,7,8 63:1,10
short 99:19	sought 7:9 18:5	19:15 24:9	64:4,10 65:17
showed 51:6 82:5	sound 11:12,18	29:10,18	68:5,14,16
showing 80:18	56:12	30:8,13,22	69:1,4,8,9,11,12,
81:15 96:10		38:5,16 39:21	13,16,20,21
	sounded 53:6 80:2	40:9 41:21	70:18
shows 37:8 49:6	sounds 29:2 74:17	43:11,13,17	71:18,21,22
90:2,21 96:12	79:8	44:11 51:16 55:3	72:19 73:7,13
sic 62:6	speak 60:15 61:11	58:8,18 59:7,8	74:5,17 75:8,10
significance	speaking 27:5	63:6 68:17,21	78:13,15 81:3
86:14,15	36:15	70:5,9 72:15	82:22 83:11 88:6
significant 10:20		77:3,21 78:10	90:7,10 91:12,17
39:16 75:12 94:2	species 66:8 83:14	83:12 84:7 86:22	92:2 93:6,7,10
	84:2 85:11,12,14	87:2 90:17	95:9,11,12,15,16
similar 72:11	specific 6:14	92:11,14 93:8	96:1,5
simplify 68:2	7:7,21 8:3,7	96:3,12,17,18,21 97:1	97:9,10,21 98:22
simply 71:16	13:21 24:15,16	98:1,2,4,10,12,1	standing 36:5
1	26:19 28:19,20	3,14,15,17,21	standpoint 49:1
single 72:4	30:9 48:1 58:15		start 8:19 13:14
sit 40:20	61:14 92:7 98:1	standardized 85:10	27:16,19 48:19
site 28:19	specifically 7:1	•	52:21
	9:11 14:15 24:13	standards 7:6 8:17	<i></i>

	T - C		
started 27:19	18:17 19:2,11	strict 39:21	support 23:19
starting 79:2,4	20:17 21:20	96:9,13	56:13 67:17
99:5,10	22:20 26:7 27:20	stricter 96:17	94:14,18 100:1
1	46:22 70:12		supposed 67:9
state 5:13 7:5 8:15	73:15 96:14 97:7	stringent 27:3	83:18
9:7 10:8 12:5,12	98:8,18	58:8,18 59:2	03:10
14:20,21 15:16	statutory 27:6	68:20 96:22	supreme 95:12
16:5 19:14 20:18	32:13 36:18 37:9	98:6,15	sure 11:16 25:9
22:19 23:21	38:22 68:11	strong 51:7	29:3 33:5 36:4
24:3,7,14	93:16	structure 38:2,22	40:18 42:4 53:15
25:18,22 26:8		43:2	58:16 62:18
28:3,10,15,16	Stein 2:5 5:8,12,20	—	64:11,16
30:5,12,14	6:3 7:14 9:15	struggling 67:6	66:15,19,22 68:5
31:16,18 32:2	16:7 21:1 24:12	studied 81:7	80:20,21 83:20
33:10,12,18 38:10,15 39:1,2	25:8,20 26:14	studies 86:18	96:16
40:15,17 41:21	28:18 29:16		surprise 94:4
43:11,18 55:10	33:14,16	subject 55:11	_
59:2,7 60:8,10	34:9,13,17,20	84:12	suspended 7:7
62:4,7 66:1,7,12	35:2 37:16 39:10	subjunctive 74:15	12:15 17:10
70:4 82:22 90:10	40:10,13 41:4 42:2,6 46:10,13	submit 10:18 14:5	41:19 94:7
93:7,17	47:9,12 49:10	45:21 87:13	Suzette 2:8
95:3,6,9,11,15,2	50:6 55:12,17		5:18,21 47:15
2 96:1,12,17,18	57:3 60:1,13	submitted 69:9	Sweeney 2:15 6:1
97:1,9,10,12,14,	62:14 63:12	subsequent 60:22	•
17,21	65:3,11,21	subset 7:16	swim 74:1
98:4,14,15,19,22	66:18,20 67:1,6		
	68:7 82:7,19	substances 8:6 9:3	T
state-approved	86:8 91:22 92:14	10:6	tailored 40:4
ŀ	101:12	substantial 51:20	taking 100:6
stated 7:1 45:13	Stein's 12:18	substitute 25:14	talk 19:19 47:17
79:10	29:12 64:15	suddenly 7:10	56:7 99:5
statement 20:1			
24:4 53:9 82:1	stenotype 103:5	sufficient 52:9	talked 26:19
statements 25:1	step 22:13 40:22	72:8,9,16	talking 18:13
52:5 89:1 91:14	63:9 94:19,22	sufficiently 30:6	19:19 32:17
	95:1 100:4,9	suggest 98:9,12	62:22 92:6
states 24:4 96:4	Stephen 2:15 6:1	20 /	talks 37:16 41:5
state's 7:2 93:11	_	suggested 16:17	67:17
States 1:1 5:3	steps 29:6 35:8	suggestion 22:18	
	straight 44:8	31:2 32:12 97:13	target 100:6,14
stations 63:17 90:8	stratification 41:8	suggests 22:11	TDDs 62:3,6,11
statistical 86:15			technical 8:17
statute 12:11	Street 2:11 3:5	supplement 6:16	23:19 24:1 26:10

	1 ag		
51:4,9 52:8	Thacker 1:15	23:10	too's 87:14
56:13 58:15	103:2,15	24:10,15,16	top 58:21
67:17 72:20 81:7	Thank 5:15 6:8	25:21 26:5 30:10	total 7:7 8:5
94:14,18 100:1	16:22 47:8	31:2 32:12 35:10	
101:7	88:17,18 102:7	37:6,19 41:21	totally 57:16 62:20
temperature 52:20	Thanks 101:12	47:17 48:5 49:19	82:3
100:17		54:5 55:5 57:5,7	touched 87:5
ten 6:8 51:14 84:6	that'll 42:19	58:20 66:5,12 68:10 71:8,9	tougher 72:18
86:5	that's 9:6 12:10	74:3 76:5 78:16	
tentative 7:1,11	13:10 14:8	79:19 81:8,9	towards 66:4 100:20
10:22 11:6 40:22	15:18,22 18:10	83:10,18,19	-
51:1 60:17	19:20 21:16	85:16 88:8 89:12	toxic 8:6 9:3 10:5
62:19,22 63:1	22:20 24:10	91:18 92:12	56:19 57:7 87:6
72:21 74:18	25:15,17	93:4,13 97:13	toxicity 6:15 48:10
76:21 77:12,13	29:4,10,11 30:1	98:9,20	52:12 53:22
83:3	32:11 33:2 35:19	they're 22:11	72:14,15 73:14
tentatively 66:11	36:9 38:11 40:2 41:2 44:8,19	29:21 50:19	76:8
- i	45:11 47:11	69:9,22	83:8,9,11,14
tentative's 74:20	49:14 50:11	76:17,18,19,20	85:6,10 87:10
term 25:6	51:21 54:16	78:10 83:6	91:13
31:10,14,20	56:6,21	87:11,13 88:5,15	toxics 10:12 94:21
54:20 55:13,20	59:7,8,12,21	91:6 93:22 99:1	100:11
terms 19:11 38:19	61:5,20,21 63:6	They've 28:16	tracked 61:9
42:1 54:2,15	66:3 67:7	1	
56:7 57:8 81:14	68:3,22	third 30:11	traditional 77:1,16
85:1 93:9 99:5	72:1,11,16	thoroughly 81:6	transcription
100:15	75:6,9 76:11	three-quarters	103:6
territory 71:7	78:15 80:9	84:5	transport 16:12
test 83:16	85:4,17 86:5	thrust 27:21 28:2	treat 40:5
84:4,6,14	87:14 88:1 89:13		
85:3,16	92:4,13 93:12	Thursday 1:10	treated 39:18 62:5
86:4,13,21,22	94:7,8 96:20,22	tides 52:19 100:17	treatment 1:5
92:17,18 94:20	97:7,12 98:18	tie 20:7 54:5,12	5:5,6 6:22 7:8
,	100:3,5,19,20 101:8	, i	26:16 45:8,9
testimony 103:4		tied 86:17	51:13 58:6,11
testing 8:19 9:9	theory 36:7	tighten 93:10	59:10,19
84:12 85:8,12,15	thereafter 103:5	97:18	62:10,11
86:19 94:17	therefore 44:5	tissue 74:1 75:2	80:10,12 87:7
tests 83:17 84:3,6	90:9,15 99:1	today 67:11	trial 44:14
85:6,11,20 86:18	there's 10:7 13:9	101:14	tried 101:4
text 32:13	18:19 22:15	tool 85:13	trigger 40:7
	10.17 22.10	tuui 65.13	

tripped 96:18	11:17 20:9 21:2	84:17	58:5,15 80:11
true 32:11 33:13	27:11 28:18 29:8	usually 42:19	88:13,16 89:21
61:21 97:12	33:22 37:20	_	91:10
103:7	38:6,19 39:1	UV 81:9,13	92:3,18,19,22
	43:1 46:20 58:4		97:19
trump 24:15	62:3 64:11	<u> </u>	waivers 7:2
try 86:16 88:19	67:3,7 72:7	valid 36:12	
100:21	75:13 82:14	value 13:17	walks 94:19
trying 10:18 20:11	96:19 100:21		Washington
42:5,11 43:1	102:5	values 69:22	1:2,9,14 2:20 3:6
74:22 82:14	understanding	variance 12:7	wasn't 24:19 35:17
87:11,13	7:15 16:20 18:7	15:12	46:22 50:3
TSD 61:3 73:15	27:13 31:13	48:2,6,8,17	61:13,14
87:10	41:15 65:8 67:15	66:2,6,11	64:13,18 84:11
	understands	variety 51:11 92:6	85:13
TSS 12:8 15:19	100:12	various 69:22 77:9	87:17,20,21 88:3
17:12 21:9 54:18			wastewater 1:5
56:22	understood 21:20	verse 53:16	5:5,6 16:13
turbidity 8:1 82:8	27:22 36:17	version 18:19	45:7,9
turn 5:10	37:13 47:1 53:5 61:8 72:10	versus 64:17 95:9	,
			water 7:5 12:5
Turning 48:19	undertaking 16:2	viability 84:12	13:19 15:16
turns 68:8	United 1:1 5:3	view 7:11 10:17	17:4,7,21 18:2,14 19:1,14
two-thirds 60:4	units 77:21	15:5 21:9 34:3	20:2,4,18 21:17
type 71:14		39:13 43:21 97:5	23:21 24:2,9
· -	unjustified 12:2	violated 87:6	25:18,22 27:22
types 26:12 32:1	unless 48:4,15	violations 11:2	28:3,10,13,16
85:20	66:10 69:22	45:17 50:1,2	29:10,14 30:8,22
typewriting 103:6	unlike 69:17	51:14,16,19 54:1	31:5,18 32:4
typical 47:21		65:16,19 74:5	34:11,13,19
typical 47.21	unprotective	05.10,19 74.5	38:5,11,13,14
	97:15	337	41:9,18,21
<u>U</u>	unreliable 97:15	<u>W</u>	42:19,21 43:11
U.S 1:13 2:7,10,17	untraditional 78:5	wait 75:7 88:2	44:10 46:14,15
unacceptable 70:8		waive 25:14 81:1,4	47:2 48:10,14
75:1	updated 53:14	waiver 7:8 11:2	49:9,17
uncertainties	upheld 48:18 50:1	15:8 18:4	50:9,14,17 52:19
74:14	urchin	26:16,21 27:2	55:1,2,3,5,11
uncertainty 26:5	83:15,17,22 84:4	28:4 34:2 35:21	56:3,10 57:6
74:4	85:2 86:4,13	36:2 39:12	58:16 59:6,11,13
	urchin's 84:1	40:15,16 44:4,11	61:17,18 62:4
undergone 85:15		46:7 51:8,21	67:20
understand 6:5	urge 26:4 38:21	52:7 55:15	68:12,14,15,21

69:2,8,10,11,12,	89:3 101:9	ZID 7:4,22 9:7,13	65:2,3,5 70:18
15,20,21 71:17	whole 6:15 28:4	10:11,13 11:3	71:2,3 89:10,20
72:1,17 73:7,13	31:6 47:6 83:8	13:9,20 14:3	90:13,18,19 94:6
74:5	85:9 87:8 91:12	17:22 18:15	ZOM-like 9:18
75:6,7,8,10,13		19:2,16,17	
76:3 77:20	whom 103:2	20:1,3,20 21:18	ZOMs 7:15
82:8,10,12,22	wildlife 71:21	24:15 26:2	zone 7:3
83:15 85:12	wondering 72:6	27:7,9,10	8:14,15,20 9:1,6
86:22 87:2 89:22	0	32:6,10,20	10:9 12:6,12,21
90:4,7,10 91:11	work 44:18 67:16 79:16 82:6	33:4,6,8 34:21	14:14,20,21,22
92:2 93:7 97:21		35:4 38:13	16:5,14 22:19
waters 8:9 93:4	works 80:17 82:15	43:7,15 47:17	24:6 28:19,21,22
ways 58:17	world 86:19 87:1	48:20 49:7	29:2,5,9,15,17
1	worry 96:20 97:1	50:3,10,15,18	30:5,12
weather 53:13	•	52:5,22 53:18	31:3,17,19,21
We'd 6:7	worrying 58:2	54:1,9 56:11,20	32:3
weeks 72:4	64:6	58:3,19 59:14	33:6,11,12,18
we'll 86:9,11	wrap 86:9,11	61:10 62:15,16 63:2,11,12,16,19	37:17,22 40:1
	writer 86:2	64:7 65:2	43:15,17 57:13,21
we're 10:7 17:22		67:18,22	59:15,17,18,20
18:13 20:11 26:3	writers 55:22	70:11,15 71:4	60:3,9,10,22
33:7 34:21 35:2	written 60:20	90:6,15 93:8	63:4,7 65:4,5
36:21 46:4 71:6	75:4,7,8	95:6 97:14	70:3,6,9
92:5 93:5,6 101:5,19	wrong 45:3,11	ZID/ZOM 10:1	93:11,17 95:2,7
	61:20,21,22	14:10 94:10	96:1 97:17 98:22
West 84:13	wrote 54:17	101:2	99:13 100:5,18
85:15,17,21,22	W1010 5 1.17		zones 6:10,19
wet 8:19 9:9	<u> </u>	ZOM 7:3 8:4 10:4	24:3,5,8,11 26:9
82:8,13 83:4	yet 9:17 37:15	12:4 13:9 14:4,7	28:10,15 31:17
86:18 94:16,20	69:8,14	18:5	32:1,2,3 39:2,5
we've 54:3 87:6	·	23:2,9,12,17 29:22 35:3	95:3 97:12,14
88:21 93:20	yield 43:10	43:8,13 47:18	, , , , , , , , , , , , , , , , , , ,
101:13,15	you'll 9:10 18:21	48:20	
Whereupon 102:8	89:7	49:7,8,14,18	
_ i	yourself 22:14	50:1,3,4,15,20	
whether 8:14 9:22	-	51:2,6,19	
10:2 15:12,13	you've 27:11 58:16 94:7	52:2,6,9,22	
23:10 24:5 36:12	7 4 ./	53:17 54:1 58:3	Ì
40:14,17 42:18		59:15	
43:4,7 45:19	<u>Z</u>	62:5,8,10,16,17	
51:7,10 65:19,22 66:12 68:12 71:8	Zener 3:3 5:17	63:11,16,19	ĺ
80:10 81:2 82:7	6:14	64:8,12,19	
00.10 81.2 82:7			