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ENVIRONMENTAL
HEARINGS OFFICE

BEFORE THE POLLUTION CONTROL HEARINGS BOARD

STATE OF WASHINGTON

AIRPORT COMMUNITIES COALITION,)
)
 Appellants,)
)
 CITIZENS AGAINST SEA-TAC)
 EXPANSION,)
)
 Intervenor/Appellant,)
)
 vs.)
)
 DEPARTMENT OF ECOLOGY and)
 the PORT OF SEATTLE,)
)
 Respondents.)

PCHB No. 01-160

TRANSCRIPT OF PROCEEDINGS

DAY FIVE

March 22, 2002
Lacey, Washington

ORIGINAL

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1 BE IT REMEMBERED that the above-entitled matter
2 came on for hearing before the Pollution Control Hearings
3 Board, Day One commencing on the 18th day of March, 2002,
4 and continuing through Day Ten, the 29th day of March,
5 2002. The hearing was conducted at the Environmental
6 Hearings Office, 4224 6th Avenue SE, Rowe Six Building 2,
7 Lacey, Washington.

8 Sitting as the Washington State Pollution
9 Control Hearings Board were KALEEN COTTINGHAM, presiding,
10 ROBERT V. JENSEN, Board Chair, and BILL LYNCH, Member.

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12

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I N D E X

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E X H I B I T S

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>IDENTIFIED</u>	<u>ADMITTED</u>
No. 803	Letter re 1998-401 BMP condition T. McDonald to T. Washburn	5-0082	
No. 1178	(Deposition Exhibit 410) PGG Sea-Tac runway Fill Hydrologic Studies Report June 19, 2000		5-0143

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March 22, 2002

Day Five

MS. COTTINGHAM: Good morning.

Let's go back on the record.

I have a written compilation of the order relating to limiting the prefiled testimony and the oral testimony of a couple of witnesses. And attached to this for the Board members -- actually I probably don't have a copy.

Mr. Pearce, would you give me a copy?

Attached to the back of this are pages from the prefiled testimony that have the particular information redacted, so you may want to insert this where appropriate in the prefiled testimony. And as before, I'm not going to be mailing these out, so could you make sure all of the attorneys that need to have copies have copies?

(Pause in proceedings).

I guess the only announcement I would like to make is that next week during the closing arguments we have some interest in TVW broadcasting the closing arguments. So sometime the night before they will set up in here and try to minimize intrusions in here, but we may have to make a little room for some cameras. That's a ways off.

And with that, Dr. Strand is still on the stand.

MR. WITEK: Thank you.

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1 MS. COTTINGHAM: Dr. Strand, you're still under
2 oath this morning.

3 THE WITNESS: Yes, I am

4 MR. WITEK: Ms. Cottingham, we don't have any
5 more questions for Dr. Strand.

6 MS. COTTINGHAM: Where did we leave off?

7 MR. STOCK: We left off with ACC's questions, so
8 I guess it would be CASE, if they have any.

9 MS. COTTINGHAM: Mr. Poulin.

10 MR. POULIN: Yes, very briefly.

11

12

EXAMINATION

13 BY MR. POULIN:

14 Q Dr. Strand, you testified about taking some turbidity
15 samples on the site visit of January 28th?

16 A Yes.

17 Q Did you calibrate your turbidimeter before taking those
18 samples?

19 A Yes, I did. That morning before starting the site visit I
20 put new batteries in the Hellig turbidimeter and checked
21 the calibration and recorded it on the calibration
22 recording sheet that is kept with the instrument.

23 MR. POULIN: Thank you. No further questions.

24 MS. COTTINGHAM: Mr. Pearce or Mr. Kray.

25 MR. PEARCE: I think the Port will go first.

AR 055763

1 Thank you, Your Honor.

2

3

EXAMINATION

4 BY MR. PEARCE:

5 Q Good morning, Dr. Strand. My name is Roger Pearce.

6 Just one thing for clarification. You said that
7 Chinook salmon frequent the outfalls of Miller and
8 Des Moines Creek. Does that mean the area where the mouth
9 meets the Puget Sound?

10 A Yes. What I meant by that is the Chinook on their
11 outmigration will pass the outfall of the creeks into the
12 sound. They don't exploit either of those streams.

13 Q If I could ask you a few questions about water quality
14 testing. Of the numeric criteria, your understanding is
15 these criteria apply in the receiving waters, is that
16 right?

17 A That is correct, in the receiving water, yes.

18 Q In order to determine if there's a violation of these
19 numeric water quality criteria, you need a sampling
20 averaged over time, is that correct?

21 MR. POULIN: I object, to the extent this calls
22 for a legal conclusion.

23 MS. COTTINGHAM: Would you lay a foundation, so
24 I understand the nature of the question.

25 MR. PEARCE: I asked what his understanding is,

AR 055764

1 that's all. Let me repeat the question for you.

2 Q Is it your understanding that in order to determine
3 whether the criteria are satisfied, you need a sample
4 that's averaged over time?

5 A That's correct. It says so in the criteria table.

6 Q And that's different for acute and chronic, isn't it,
7 one hour for acute and four a day for chronic?

8 A That's correct.

9 Q You also need hardness data, is that right?

10 A For metals you need hardness data, and there are formulae
11 in the criteria table to help you calculate the hardness-
12 based criteria.

13 Q And the standard, in your understanding, the actual
14 standard in the Washington the Administrative Code is for
15 the total dissolved fraction of metals, is that right?

16 MR. WITEK: Ms. Cottingham, we are going object
17 to the question as vague. Would you have him start over
18 again?

19 MS. COTTINGHAM: This question or all questions?

20 MR. WITEK: Just this question. The question
21 sort of started out and then changed course a few times.

22 MS. COTTINGHAM: Can you restate your question.

23 MR. PEARCE: I would be happy to.

24 Q For metals, the numeric water quality standards are for
25 the total dissolved fraction of the metal in the receiving

AR 055765

1 water, is that right?

2 A They're based on the dissolved fraction.

3 Q I think that yesterday you said that in order to attribute
4 a particular level to a particular discharge point you
5 also need data immediately upstream from the receiving
6 water and immediately downstream of the receiving water,
7 did I understand you correctly?

8 A That's an approach that I would employ if I wanted to
9 better understand the contribution of a discharge to a
10 receiving body.

11 Q I believe you rely on the 1997 data in Exhibit 426. Let's
12 get that exhibit in front of us. Do you have that it
13 there?

14 A Yes, I do.

15 MS. COTTINGHAM: The number again?

16 MR. PEARCE: It's 426.

17 Q Do you have that in front of you, Dr. Strand?

18 A Yes, I do.

19 Q Could you look at page 33?

20 A Yes, sir.

21 Q Does that show the dates on which samples were collected?

22 A Yes, it does. Under the section 5.2 methods.

23 Q Does it show the particular locations in this section, are
24 you aware of whether it shows the particular locations? I
25 think that's in section -- if I can amend the question, I

AR 055766

1 believe that's in section 5.

2 A In section 5.

3 Q Yes, the whole section.

4 A Yes.

5 MS. COTTINGHAM: What page?

6 MR. PEARCE: Section 5 is -- perhaps I should
7 just restart this question.

8 Q Section 5 is pages 33 through 40, and I was just wondering
9 if the witness knew exactly where those instream samples
10 were taken?

11 A It says in the footnote of Table 19 that outfall stations
12 include stations SDN 1, SDN 2, and SDN 3. I believe that
13 refers back to a site map that's in a previous section of
14 the report.

15 Q Okay.

16 A I can't recall what page it is without looking.

17 Q But does it state where in the Miller Creek and in
18 Des Moines Creek the samples were taken?

19 A In Miller Creek, it says outfall stations include, and
20 they are marked on a map, and that's about as close as I
21 can come to repeating what these data say with respect to
22 exactly where in the receiving body that the samples were
23 collected.

24 Q These outfall stations are not in the receiving body, are
25 they, SDN 1, SDN 2, and SDN 3?

AR 055767

1 A Those are in Lake Reba, which I infer from this and I'm
2 assuming that to be the receiving body through which
3 Miller Creek passes.

4 Q Okay. Thank you.

5 Could you look at page 34, the first paragraph on
6 that page?

7 A Yes, sir.

8 Q Does that indicate the method of sampling?

9 A The first page on 34, the first paragraph deals with the
10 sampling equipment that was used to collect the samples,
11 in this case for metals, and the bottle type. And it goes
12 on to talk about how the samples were conveyed to the
13 laboratory.

14 Q Okay. Does it say that the compositing was done manually
15 with flow rated samples based on hydrograph data?

16 A No, it does not. These weren't flow rated composite
17 samples, that I understand.

18 Q Could you read the last sentence there on that paragraph,
19 in sample compositing?

20 A Okay. Sample compositing was done manually with flow
21 rated proportional samples, based on hydrograph data.
22 They also collected some -- they talk about the previous
23 page, about triplicate samples collected at each outfall
24 upstream and downstream. Okay. So they are flow rated
25 composite samples.

AR 055768

1 Q Could you explain to the Board very briefly what that is?
2 I know I would sometimes miss the concept.

3 A The concept is described as collecting a series of samples
4 over a period of time from the same sample point. They use
5 an automatic sampler to do that. You can do it manually,
6 but then you're putting all of those samples together into
7 one sample, that's what is meant by compositing.

8 Q Do you know how long a length of time this composite was
9 taken over?

10 A I don't think it says so in this report. I would have to
11 go back and see if it was covered in reports -- sampling
12 procedures report. I couldn't tell you whether it was for
13 over 24 ours or 72 hours or what.

14 Q Okay. Do you have an understanding of whether it was a
15 one-hour composite or a 24-hour composite or which one it
16 was?

17 MR. POULIN: Asked and answered. The witness
18 has testified he doesn't know.

19 A I can't recall that. I would have to go back.

20 MS. COTTINGHAM: Sustained.

21 Q (By Mr. Pearce) If I understand your testimony then, you
22 can't tell from this exhibit or from your testimony the
23 length of the composite sample?

24 MR. WITEK: I object. That mischaracterizes
25 what Dr. Strand testified to yesterday.

AR 055769

1 MS. COTTINGHAM: Can you restate the question.

2 MR. PEARCE: I guess I don't know what the
3 objection is. Either he can tell whether it's a one-hour
4 sample or 24-hour sample or he can't. I think he just
5 testified he can't, and I just want to make sure I
6 understand that.

7 MS. COTTINGHAM: I'll allow the question.

8 MR. PEARCE: I forgot it. Let me try again.

9 Q Is it your understanding then that we can't tell from this
10 report and that you don't know whether the flow rated
11 composite was a one-hour composite or a twelve-hour
12 composite or something like that?

13 A I assume it was a one-hour composite, but I can't be sure.
14 The assumption is based on the Port's including the
15 criteria in Table 19. My assumption is, if they didn't
16 include the criteria they wouldn't have allowed or made
17 provision for a comparison to the actual criteria. The
18 criteria are based for acute on a one-hour comparison, but
19 I'm not sure and it doesn't say specifically but because
20 the criteria are included in here, I assume that, yes,
21 it's for comparison sake.

22 Q That's the assumption you were making then?

23 A Excuse me?

24 Q That's the assumption you were making is a one-hour
25 composite?

AR 055770

1 A Yes.

2 Q I think you also cited 1998 and 1999 data in your
3 testimony. Is that the data from the 1999 and 2000 Port
4 of Seattle annual stormwater monitoring reports?

5 A As I recall, that's correct. I was looking at those
6 annual reports as well.

7 Q Okay. There's no hardness reported in those reports, is
8 there?

9 A I'm assuming that there is hardness data reported there.
10 It's a requirement.

11 Q Is it your understanding it's a requirement of the Port's
12 NPDES permit to report hardness?

13 MR. POULIN: Objection. Mischaracterizes his
14 testimony.

15 MR. PEARCE: I wasn't characterizing his
16 testimony, Your Honor, I was asking a question whether --

17 MS. COTTINGHAM: I'll allow the question.

18 A I assume that the hardness is a requirement.

19 Q In your understanding, do the 1999 and 2000 annual
20 stormwater reports require one-hour average samples?

21 A It's my understanding that each of those reports that were
22 based on data that were collected by the Port required
23 both grab samples and flow rated composite samples. I
24 don't remember any departure from those procedures that
25 are in the Port's manuals, measuring methods manuals.

AR 055771

1 Q But are they averaged over an hour or are they
2 instantaneous?

3 A As I remember, the data focused on time composite flow
4 samples, averaged over one hour, so that you could make a
5 comparison to acute criteria.

6 Q Do you know if in 1999 and 2000 those reports reported
7 total recoverable metals as opposed to total dissolved
8 fraction?

9 A It seems to me that the graphics and the tabular data,
10 pursuant to the routine monitoring requirements on the
11 outfalls, reported total recoverable metals. I think
12 there were some special studies undertaken in one year
13 that they did some actual separations, but the normal
14 reporting was as total recoverable.

15 Q Okay. Do you know whether the sampling was in the stream
16 or at the Port's outfalls?

17 A As I understand, they were in the pipe, at the discharge.
18 They were not collected, the samples were not collected
19 from the stream.

20 Q You also talk about a study by Herrera Environmental in
21 your testimony. This is a study in the Des Moines Creek,
22 right?

23 A That's correct, it was a five-year study.

24 Q These are all south of the airport property?

25 A My understanding, yes, all south of South 200th Street,

AR 055772

1 which is the road that crosses the stream at the south
2 boundary of Tyee Golf Course.

3 Q Is it possible to point to particular sources for the
4 discharges reported in that study?

5 A Specific sources, no. The data was interpreted by
6 Herrera, and as a scientist interprets one data they
7 conjecture where the sources of the metals, in this case,
8 were coming from, and they listed several sources of that.

9 Q I believe you quote one of those conjectures in paragraph
10 ten of your testimony, don't you?

11 A Yes. I repeated their scientific interpretation, it was a
12 quote from their --

13 Q Let's take a look at that. Do you have your testimony in
14 front of you, Dr. Strand, paragraph ten, page seven?

15 A Page seven?

16 Q That's correct.

17 A Paragraph ten, yes, I have it.

18 Q Okay. The first quote is that: Runoff carrying
19 pollutants from SeaTac Airport, which is located upstream
20 of station DM 1, may be responsible for higher dissolved
21 copper concentrations in Des Moines Creek.

22 With the exception of my tripping over
23 concentrations, did I read that correctly?

24 A You read that correctly.

25 Q And the second quote is that: Water quality violations

AR 055773

1 for zinc in the upper reaches of these basins may be
2 related to runoff in high traffic area, e.g., SeaTac
3 airport and parking areas in the Des Moines Creek basin
4 and SR-99 in the Massy Creek. Is that correct?

5 A That's correct, sir.

6 Q There is a good deal of the city of SeaTac and the city of
7 Des Moines that does discharge to Des Moines Creek, isn't
8 that right?

9 MR. WITEK: Objection. Vague.

10 MS. COTTINGHAM: Restate your question.

11 MR. PEARCE: I think that counsel is concerned
12 about whether I got a good deal.

13 Q Are you aware of whether there are portions of the city of
14 SeaTac and the city of Des Moines streets that discharge
15 to the Des Moines Creek?

16 A Yes. Certainly SeaTac, above the Port's property, has
17 runoff that contributes to that, you bet.

18 Q That includes State Route 99 as well, doesn't it?

19 A It says so here, the quote does, you bet.

20 Q Are copper and zinc a very common pollutant left on
21 roadways from automobile tire and brake wear?

22 A They are. And they come from impervious surfaces, both
23 from streets and parking areas and runways.

24 Q Okay. Let's switch gears and talk about the sediment
25 sampling you did above Lake Reba.

AR 055774

1 A I didn't do any sediment sampling above Lake Reba. I
2 never had access to the Port's property to take any
3 sediment samples.

4 Q Where were the samples collected then on which you base
5 your conclusions regarding the sediments in Lake Reba?

6 A Those are the Port's data from this Exhibit 426, the 1997
7 Annual Stormwater Report. As I say, I did not collect
8 those sediments, I was just interpreting data that was
9 provided by the Port in their annual report.

10 Q Were these samples taken upstream or downstream of Lake
11 Reba? I'm sorry, let me make that more clear.

12 Were there any samples taken upstream in Miller Creek
13 and downstream in Miller Creek from Lake Reba?

14 A The data that are included in the report include data from
15 above Lake Reba. It's a table that I talked about
16 yesterday.

17 Q Let's show the Board -- I think we can use this map for
18 Lake Reba. Could you locate it here for us?

19 MS. COTTINGHAM: You're blocking the Board's
20 view.

21 Q Could you show the Board where Lake Reba is on that map?
22 I think it's a mottley looking --

23 A This is not a very good map. It's better -- it says Lake
24 Reba in this area here -- I'm sorry, in this area here.
25 It's better shown on a map that's in the 1997 data report.

AR 055775

1 This doesn't show any topographical relief. Lora
2 Lake lays to the left of it, but in this area is Lake Reba
3 and the wetlands that surround that lake.

4 Q I'm sorry -- I didn't want to interrupt you.

5 A So that's the best I can do with that map. It's better
6 shown in this map that's in this text here.

7 Q The only point I wanted to bring out, I think, is whether
8 you know if Lake Reba is instream in Miller Creek or
9 whether it is not instream in Miller Creek but discharges
10 to it?

11 A My understanding from looking at the maps is that the
12 stream really passes through it and exits it.

13 Q In your analysis of sediments, you cited exceedances of
14 the Ontario Sediment Guidelines, is that correct?

15 A May I ask a question? May we go back to that table in the
16 exhibit so I have it in front of me?

17 Q Certainly.

18 MS. COTTINGHAM: Which exhibit are you in, is it
19 426?

20 A It's 426. And let me see if I can quickly find that
21 table. It's page 14, yes. I have it now, yes, sir.

22 Q I wanted to ask you briefly about those guidelines. Well,
23 let me ask you first, are there any State of Washington
24 standards for metals and sediments,
25 freshwater sediments?

AR 055776

1 A Not freshwater sediments, they've not been adopted yet,
2 they're being developed as we talk.

3 Q Are you aware of any draft standards for Washington
4 freshwater sediments?

5 A Yes, I've seen some draft information.

6 Q Are the sediment concentrations shown here on page 14 of
7 this report above or below the draft Washington standards?

8 A That's a good question.

9 Q If you know.

10 A I believe for copper, I think I can recall that, that the
11 proposed standard is above the standard that has been
12 adopted in Canada. And close to, as I remember, a marine
13 standard, but that's as I recall about a factor of ten
14 above what the Ontario standards suggest as an appropriate
15 standard applicable in Canada. The standards in the state
16 of Washington have been under discussion and development
17 for years. Some of these -- I think this gets at some of
18 the problems, maybe perhaps why they're not adopted, it's
19 an agreement as to how to calculate the standards.

20 Q Those Ontario standards, are they in effect throughout
21 Canada or just in Ontario?

22 A My understanding is they have wider application. There is
23 another set of standards that are proposed up there that
24 have wider application but, as I understand it, they go
25 beyond just the city of Ontario Canada.

AR 055777

1 Q Do you know whether the Ontario standards are still in
2 place?

3 A It's my assumption that they are. But they are being -- I
4 know that there will be another set of standards adapted
5 that's under development, it's in draft form.

6 Q Are you familiar with any criticisms of the scientific
7 literature in your field regarding the use of those
8 Ontario sediment guidelines?

9 A If you're getting at criticism of the basis of how they're
10 calculated, which is based on something that's called
11 apparent effects threshold, there is some criticism. But
12 that's the way we in the state of Washington calculate our
13 marine sediment standards, we use the same basic concept,
14 apparent effects threshold.

15 Q Is it true, isn't it, that apparent effects thresholds
16 don't represent a direct cause and effect relationship
17 between the presence of metal and toxicity?

18 A I'm not so sure I would agree with that. They're based on
19 bioassay data. I think the criticism focuses on outliers,
20 sensitivity for one or another reason that can occur with
21 a particular organism and can occur because of the method
22 in which the animal was tested. But I think there's a
23 cause and effect relationship, I don't think it's correct
24 to say that it isn't.

25 Q Isn't it true that metals have to be bioavailable in order

AR 055778

1 to be of concern?

2 A For fish, yes, but not for some invertebrates. They can
3 take in metals that are in another form, a particulate
4 form, and that can cause toxicity when that metal in
5 particulate form is processed through the animal's gut and
6 it's mobilized in that way, through acidity in the gut of
7 the animal.

8 Q The samples from Lake Reba, did they have the acid
9 volatile sulfide measured in any of those samples?

10 A I don't believe so. It's not listed as an analyses that
11 is included in Table 4, page 14, in Exhibit 426.

12 Q Acid volatile sulfide is a method to reflect the
13 bioavailability of the metals, is it not?

14 A In sediments in interstitial water of the sediments, yes,
15 it is.

16 Q Okay.

17 A I'm just reminded, however, that I think that through some
18 of our own sampling that we did determine that metals in
19 the system are bioavailable to fish.

20 Q What system are you referring to?

21 A The ecosystem. Miller Creek, Des Moines Creek ecosystems,
22 metals are bioavailable in those systems.

23 Q The dissolved fraction of the metals, is that what you're
24 talking about?

25 A Yes. It gets into the fish and is accumulated by the

AR 055779

1 fish.

2 Q You talked briefly -- well, you talked in your testimony
3 about a whole effluent toxicity testing. Is that correct?

4 A Yes, I have.

5 Q That's also referred to as WET, W-E-T?

6 A The acronym WET, yes.

7 Q Thanks. And you talked in particular about one particular
8 outfall, SDN 1, is my understanding correct?

9 A That's one that I have highlighted in my evaluation. Yes,
10 it is, it's been problematic as documented in the toxicity
11 tests that the Port has undertaken over the years.

12 Q Is it your understanding that that toxicity concern at
13 that outfall was traced back to a leaching galvanized
14 roof?

15 A That's my understanding, that's correct.

16 Q Is it your understanding that the third runway project we
17 are talking about here contains any of those types of
18 galvanized roofs?

19 A I don't know if there's contemplated construction with
20 galvanized roofs, I hope not.

21 Q Is the water from that outfall, SDN 1, routed to Lake
22 Reba?

23 A It's my understanding from what I've read in the Port's
24 annual reports that discharge is into Lake Reba.

25 Q Are you aware of what the zinc concentrations are at the

AR 055780

1 outfall of Lake Reba?

2 A I can't recall any. We certainly have some indication
3 that there is zinc in the sediments downstream from
4 Lake Reba, based upon your own data, but I can't recall
5 seeing a concentration for zinc below Lake Reba that is in
6 the water column.

7 Q Turning to tissue residue or fish bioassays, I guess?

8 A Fish bioassays?

9 Q Yes. That measures tissue residue concentration of
10 metals, does it not?

11 A Bioassays are generally undertaken to determine the
12 toxicity in the water column to which the animal is
13 exposed. You can do tests, some tests are focused on
14 measuring what is bioaccumulated in the animal, yes, but
15 they're not usually a part of the toxicity data testing
16 that's done to set criteria.

17 Q Okay. Has Washington adopted any water quality standards
18 based on tissue concentrations?

19 A No, they have not. My interest in this was based on
20 finding literature data that allowed a comparison to
21 tissue deposited concentrations, and, as I said before in
22 my direct, that the Army Corps has adopted such a concept
23 in managing their dredging programs.

24 Q Turning to glycols for a moment. Glycols are solutions
25 that are used to de-ice planes in runways, are they not --

AR 055781

1 I'm sorry, to de-ice planes?

2 A Yes, they can be used to de-ice planes, they can be used
3 to coat the skin of the plane to prevent ice formation,
4 yes.

5 Q In your testimony, you rely on an article by a gentleman
6 named Dr. Hartwell?

7 A Dr. Hartwell, yes. That appeared in a peer review journal
8 that I read routinely.

9 Q And Dr. Hartwell's paper showed some gill pathology for a
10 seven-day exposure at a certain concentration, is that
11 right?

12 A That's correct. He did some pathology studies with
13 chronic exposures to I think both propylene and ethylene
14 glycols.

15 Q Hartwell relied on the data from a gentleman named Fisher,
16 didn't he?

17 A Not to interpret his data on the pathology of the fish
18 that he exposed to glycols. He quoted a range of toxicity
19 that were reported by another scientist. This is found in
20 the discussion section of that Hartwell paper, yes.

21 Q But he relied on that Fisher data for concentrations?

22 A In the design of his pathology study? No, I don't think
23 so.

24 Q What did he --

25 A I think what you're driving at is he may have misreported

AR 055782

1 fisheries data saying that glycols are more toxic than
2 what the fins subsequently showed is the case in his
3 pathology studies, but not very much less toxic.

4 Q Well, if he did misreport the Fisher data, wouldn't the
5 gill pathology threshold in his study be off by a factor
6 of a thousand?

7 A No, not at all. That was a separate study. He was simply
8 reporting the data as he received it from Fisher, and it
9 may well be that he misreported it. But the design of his
10 study is not affected at all, in my opinion, not affected
11 at all by that misreporting of data, it only comes up in
12 the discussion of the study, it has nothing to do with the
13 design or the conduct of the experiment that's reported on
14 in his paper that dealt with the fish pathology.

15 Q Are you familiar with distinctions between type one
16 glycols and type two glycols?

17 A Yes, I am.

18 Q Are type two significantly more toxic?

19 A As I recall, the type two, the one that has the propylene
20 glycol and some specific additives, I believe, is the type
21 two that's more toxic. I know that I was made aware of
22 that in some of the declarations that the Port scientists
23 provided.

24 Q Do you know whether the Hartwell study referred to type
25 two glycols or type one?

AR 055783

1 A They tested both ethylene and propylene glycols. Clearly
2 the work was done in the early nineties, I believe, mid-
3 nineties, and where we are now with the manufacture and
4 use of the glycols, clearly they are different. They
5 probably have a different mix of additives; proportions of
6 glycols probably stay the same, but, yes, it's true that
7 they do change and they change all of the time.

8 And that's an issue that I have with how the Port has
9 dealt with their glycols, they don't know what the
10 toxicity of those glycols are. And part of the reason why
11 I'm reviewing this effort to look at glycols and try to
12 come to grips with whether or not they're toxic or not is
13 to insure that the Port is testing their glycols. And
14 they're not. They're relying upon some manufacturer's
15 data but they don't know how they behave, either, in the
16 streams, in the waters that pass through our streams.

17 Q Well, are you aware of what percentage of the de-icing
18 compounds used at the airport are type one and what
19 percentage are other types?

20 A It's my understanding that the less-toxic type glycol is
21 used less than, significantly less than the more toxic
22 glycol preparation. And I think it was about -- it was
23 less than five percent, maybe four to five percent of the
24 time they used the more toxic glycol preparation.

25 Q Has the EPA promulgated any water quality standard for

AR 055784

1 glycols?

2 A Not to my knowledge. We don't have any here in this state
3 as well.

4 Q Has the State of Washington promulgated any water quality
5 criteria for glycols?

6 A No, they've not, specific criteria, no. But there are
7 many organic compounds that are not specifically covered
8 under the State of Washington's 173-201.

9 Q Have you reviewed the biological assessment that was
10 prepared for the U.S. Fish and Wildlife Service?

11 A Yes, I did.

12 Q Do you recall whether that biological assessment analyzed
13 the impacts of the Port's use of de-icing agents on area
14 streams?

15 A I can't recall. I haven't reviewed that recently, I would
16 be just hazarding a guess.

17 Q Let's not do that.

18 Are you aware of the year 2000 study by the
19 Environmental Protection Agency to review available
20 literature regarding de-icing agents of glycol, EPA 2000?

21 A No, I've not read that myself, I've read a fair amount of
22 literature, scientific literature on the testing of
23 glycols and de-icing and anti-icers. Clearly, many of
24 those papers I'm sure would have been included in the
25 review article, but I've not read that EPA review article.

AR 055785

1 Q I won't ask you about that then.

2 You also talked some about fill criteria in your
3 testimony yesterday, in your written testimony. Are there
4 appropriate methodologies to determine whether constituent
5 substances in the fill could harm water quality in
6 receiving waters?

7 A Are there appropriate procedures, I think the question is.
8 There are procedures in place that are to determine or
9 protect the surface waters.

10 Specifically, are you referring to the fill
11 acceptance criteria that the Port has developed?

12 Q Let me be more clear. I think I asked a question that was
13 not clear enough for you.

14 Are there methodologies, scientific methodologies to
15 determine whether a particular constituent is inert, to
16 test that and determine whether that constituent would
17 leach out into groundwater and surface water?

18 A Now, I'm not a hydrogeologist, I'm a fish biologist. I
19 believe there are methodologies that can be applied to
20 address that potential, but specifically I've not worked
21 with any directly with my own hands; I've worked with
22 interdisciplinary teams where another scientist has dealt
23 with that issue, but it would have to be a sort of
24 qualified yes, I believe that there are methods that are
25 applicable.

AR 055786

1 Q Okay. Are you familiar with the synthetic precipitant
2 leaching procedure?

3 A I know it's exists, I've never performed it myself. I
4 know it was suggested alternative procedure that Fish and
5 Wildlife Service asked the Port and the State to consider
6 in regard to the issue here.

7 Those were all of the questions I have. Thank
8 you very much, Dr. Strand.

9 MS. COTTINGHAM: Mr. Kray.

10 MR. KRAY: Thank you.

11

12

EXAMINATION

13 BY MR. KRAY:

14 Q Good morning, Dr. Strand. You and I met at your
15 deposition. I'm Jeff Kray from the Attorney General's
16 Office.

17 A Yes.

18 Q With regard to the fish samples that you took and the
19 results from those samples, I believe it was your
20 testimony that clearly the Port contributes metals.

21 In sampling the fish, the metals don't come with a
22 label that says "Made in Burien," correct?

23 A That's correct. I found metals in the fish, period.
24 I based my interpretation that metals come from the Port
25 in part, I think they are a major contribution to these

AR 055787

1 streams, it's based more on the data that I look at in the
2 annual reports.

3 Q So the conclusion of the source of the metals is a matter
4 of opinion, correct?

5 A Correct. But clearly you can't reconcile that there
6 aren't metals in the discharges that come from the Port
7 and that they are a significant volume of those streams at
8 the time that they're discharged.

9 Q With regard to the fill, it's my understanding that you
10 identified what I think you characterized sites of
11 concern, Hamm Creek, First Avenue South Bridge, and Black
12 River Quarry, is that correct?

13 A Yes. Reading through the reports that dealt with the site
14 assessments, the sampling, those were candidate sites,
15 candidate fills for the third runway that showed some
16 evidence of chemical contamination, and that was what
17 piqued my concern.

18 Q My understanding is that your concern was based on
19 documentation; correct?

20 A That's correct.

21 Q Have you done any sampling yourself or any testing of
22 materials at any of those SDN 3 sites?

23 A No, sir.

24 Q With regard to the 401 certificate itself and the fill,
25 acceptable fill criteria, there's a provision in there

AR 055788

1 with regard to the number of samples. And you said that
2 you had just a concern about those. I guess my question
3 is, did you quantify in any way your concern about those
4 samples?

5 A My concern is based upon simply finding a table of
6 suggested number of samples that could be applied to so-
7 many cubic yards of soil that are candidates for
8 acceptance and transfer to the airport site, stockpile
9 site. My concern focuses on what is obviously to a
10 scientist that there are relatively few number of samples
11 here to characterize thousands of cubic yards of potential
12 or candidate site or candidate fills. There's no rhyme or
13 reason why this number of samples is suggested as being
14 representative. There's no suggestion that we should take
15 samples randomly, as a statistician or scientists often
16 has to grope with, in deciding how many he or she must
17 collect in the way of samples for any particular
18 measurement.

19 There's no understanding given to the reader what's
20 behind that table. Is there some sort of systematic way
21 that the sample size that's suggested in that table in the
22 401 was arrived at based upon statistical rigor that
23 assures someone who is going to live or die by those
24 samples that they are a true in fact representative. I
25 would have to have a lot more information in order to

AR 055789

1 calculate whether I thought that those -- just how many
2 samples had to be taken. But your own toxics program
3 folks have some formulae that they rely on for
4 determining, or at least they have a design that they
5 follow in sampling at least sites that are going to be
6 cleaned up from petroleum spills. I think Peter Kmet, who
7 is a scientist at your agency, has looked at this and
8 suggested that many more samples than the relatively few,
9 I think six that you recommend as a minimum sample for
10 something over a hundred thousand cubic yards, is
11 sufficient. He is saying at least 226, and this is what's
12 raised my concern, not the quantitative estimate itself
13 but based upon the lack of any design's supporting
14 information, I would have to question that as a scientist.

15 Q You referenced in your discussions with Mr. Pearce the
16 sediment quality standards, and as I understand it, you
17 have utilized what we've referred to as the Ontario
18 standards in your testimony and there was some discussion
19 about Washington proposed standards.

20 Am I correct in understanding that you testified it
21 is difficult for the scientific community to agree on the
22 proper standards for sediment quality?

23 A I just -- what I mean there is there is efforts still
24 under discussion just how to base the Washington
25 freshwater standards, proposed standards.

AR 055790

1 Q So not everyone in the scientific community has thus far
2 managed to agree that a particular standard, let alone the
3 Ontario standards, are the proper standards for sediment
4 quality, correct?

5 A I see what you're driving at. I didn't quite understand
6 the question. But, no, I'm sure that there is scientific
7 disagreement as to which set of standards or how to base
8 them are going to be applied, you bet. I think it's the
9 Washington standards focusing on how to refine the
10 apparent effects threshold as a way of getting at, you
11 know, the basis of setting those standards. And they've
12 been working at it a long time.

13 Q Let's return to the topic of acceptable fill criteria for
14 a moment. If you could look at Exhibit 1, please?

15 A Yes, sir. Okay, this is the 401?

16 Q Correct. And then if you would also turn in the 401 to,
17 first off, page 16.

18 A Yes.

19 Q And we were just discussing fill sampling. If you look in
20 the middle of the page there under sub (iv), it says fill
21 source sampling?

22 A I see paragraph roman four, yes.

23 Q And in the middle of the paragraph there, the phrase that
24 says "at a minimum," correct, is that your understanding
25 of the 401?

AR 055791

1 A That's what it says, yes, sir.

2 Q So "at a minimum" is a floor for the number of samples, is
3 it not?

4 A That's as I understand it, yes. I think I would accept my
5 minimum higher is what I'm saying.

6 Q If we look below that, there's a list of various
7 constituents. On the top of that is antimony?

8 A Yes.

9 Q Is antimony common in nature?

10 MR. WITEK: I object. Lack of foundation. I
11 don't think Dr. Strand said anything about that.

12 MS. COTTINGHAM: I sustain the objection.

13 MR. KRAY: I guess I don't understand the
14 objection.

15 MS. COTTINGHAM: Lay a foundation.

16 MR. KRAY: My question goes to Mr. Witek's
17 final comment, I don't think Mr. Strand talked about that.
18 Is the objection that I'm going beyond the scope of
19 direct?

20 MS. COTTINGHAM: I've sustained that on a lack
21 of foundation.

22 MR. KRAY: Thank you.

23 Q Dr. Strand, in your work, your professional scientific
24 work, have you had an opportunity to work with various
25 chemicals and constituents?

AR 055792

1 A I work with chemicals, anthropogenic chemicals quite
2 often.

3 Q Do you work with metals quite often?

4 A Yes, I do.

5 Q I think my question goes to there are obviously some
6 things that we encounter, such as oxygen, that we
7 obviously need to breathe. Hopefully that's fairly
8 abundant in nature so we can all survive. In comparison
9 with oxygen, I'm trying to determine if a metal such as
10 antimony, is that something as abundant as oxygen or is it
11 more rare?

12 A I don't encounter antimony very often in the studies that
13 I do, clearly. I don't know how rare it is or common it
14 is in soils, I'm not a soils chemist or scientist, I don't
15 know the answer to that question.

16 Q Going back to the issue of the source of a particular
17 metal. In determining that, have you performed any mass
18 balance calculations of metals loadings in either of the
19 watersheds that you've discussed?

20 A No, I have not. I might have expected that the Port would
21 have done that. Sort of getting at the point I made
22 yesterday that they don't routinely look at the transport,
23 the fate of those metals in the system, nor do they try to
24 partition the sources. I think those were my words
25 yesterday. But I have not, no.

AR 055793

1 Q I have a question about the photograph that was in your
2 prefiled testimony, Exhibit C. I believe we discussed
3 this photograph yesterday. Do you recall that?

4 A Yes, sir.

5 Q Can you identify the individuals in the photograph? I
6 think it was C.

7 A It would be a guess. I think that's Dr. Willing in the
8 center and Mr. Wingard to the lower left.

9 Q Mr. Wingard is the individual handling the sample bottle?

10 A Yes. That's not a turbidity sample, you don't take it in
11 a receptacle like that.

12 MR. KRAY: Thank you, Dr. Strand.

13 THE WITNESS: Yes, sir.

14 MS. COTTINGHAM: Any redirect?

15 MR. WITEK: We don't have any redirect.

16 MS. COTTINGHAM: Do you have any redirect?

17 MR. POULIN: Yes, I do have a couple of
18 questions.

19

20 EXAMINATION

21 BY MR. POULIN:

22 Q Yes, I do have a couple of questions.

23 Dr. Strand, briefly, you testified that you have
24 reviewed the 1999 Stormwater Monitoring Report?

25 A Yes, I reviewed that report.

AR 055794

1 Q There was some discussion earlier what about whether that
2 report included hardness data?

3 A Yes.

4 Q Do you recall whether the 1999 report included the results
5 of the WET testing that the Port performed?

6 A May I look at my prefiled testimony to answer that?

7 Q Well, I'll just direct your attention to Exhibit 139,
8 which is the 1999 stormwater report.

9 A Yes.

10 Q And if you'll turn to the page following page 107, it's
11 appendix D, way in the back?

12 A Page 107.

13 Q Yes. The pages following that, in my version we have
14 pages 110 and 109?

15 A Yes. Page 109 and page 110.

16 Q Right. And in your review, did you note that these
17 samples reported here include both hardness and copper
18 results?

19 A Let me look at this here and see if hardness data are
20 included.

21 Q I think you'll find those in about six columns from
22 the left?

23 A Hardness, I'm looking now at the 1998 - 1990 WET testing
24 sample data on page 109. And if I read across the top, is
25 this for outfall SDE 4 -- I do see that hardness data is

AR 055795

1 included, correct. Yes, it is.

2 For all of the tests that were done, SDS 3, SDN 1, it
3 does include a determination of hardness.

4 MR. POULIN: Thank you. No further questions.

5 MS. COTTINGHAM: Can you identify which column
6 you're looking at?

7 THE WITNESS: Yes, ma'am. If you look across
8 the top of the table, you'll see at the very top a sample
9 type, storm characteristics. And then we go into another
10 table heading called concentration milligrams per liter.

11 MS. COTTINGHAM: Mm-hmm.

12 THE WITNESS: And if you read all of the way
13 across the different analyses that include under that line
14 that starts with concentration milligrams per liter,
15 you'll see an abbreviated h-a-r-d. That's the hardness
16 value.

17 MS. COTTINGHAM: Thank you.

18 Any Board questions?

19 I have one. And it was a comment that you made
20 yesterday, so hopefully it'll trigger your memory back to
21 then. You were talking about the fill sources that you
22 have some concerns with, you talked the First Avenue
23 Bridge soils, the Black River Quarry and the Hamm Creek
24 soils. In the Hamm Creek soils, you said there were
25 chemical contaminants contained within and you mentioned

AR 055796

1 DDT and PCB. And for the DDT you said 14, and I think you
2 said parts per billion, is that correct?

3 THE WITNESS: I believe I said parts per
4 billion, it's micrograms per kilogram.

5 MS. COTTINGHAM: Okay, parts per billion.

6 But for the PCB, I didn't catch what the parts per
7 billion. Do you recall that?

8 THE WITNESS: I believe that was 160.

9 MS. COTTINGHAM: Thank you. No further
10 questions.

11 Any questions as a result of Board questions?

12 ALL COUNSEL: No, Your Honor.

13 MS. COTTINGHAM: You're excused.

14 MR. STOCK: Those are the witnesses over whom
15 we have control that we will be calling, and now it's time
16 for Ecology witnesses.

17 MS. COTTINGHAM: Why don't we take a ten minute
18 break to allow you to change tables and stop the clock and
19 we'll come back at quarter till eleven to start with
20 Ecology's witnesses.

21 (Recess).

22 MS. COTTINGHAM: We'll go back on the record.
23 We shift over now to Ecology.

24 MR. YOUNG: Our first witness is Kevin
25 Fitzpatrick.

AR 055797

1 KEVIN FITZPATRICK, having been first duly sworn or
2 affirmed to tell the truth, the whole truth, and nothing
3 but the truth, testified as follows:
4

5 EXAMINATION

6 BY MR. YOUNG:

7 Q Would you please state your name and spell your last name?

8 A Yes. Kevin Fitzpatrick. Last name is spelled
9 F-i-t-z-p-a-t-r-i-c-k.

10 Q And you're employed by the Department of Ecology, is that
11 correct?

12 A Yes, I've been an employee of the Department of Ecology
13 since 1986.

14 Q And in what capacity are you employed?

15 A Currently, I am the Northwest Regional Office section
16 manager for the water quality program. And the Northwest
17 Regional Office is in Bellevue, Washington.

18 Q Can you give us very briefly a summary of your
19 qualifications?

20 A Yes. I hold a BS in biology from Loyola University in
21 Chicago, an MA in zoology from Southern Illinois
22 University in Carbondale, Illinois. Following completion
23 of graduate school, I went into the Coast Guard officer
24 candidate school program and served six years in active
25 duty in the U.S. Coast Guard as a commissioned officer in

AR 055798

1 the marine environmental response program and the
2 commercial industrial inspection program. And then
3 following those six years of active duty, in 1986 is when
4 I took my first position with Department of Ecology, and
5 that was as the agency's first environmental crimes
6 investigation.

7 Q How long have you in the water quality section?

8 A I've been in the water quality program, first came to
9 water quality program in late 1987, working as a water
10 quality inspector out of the Northwest Regional Office.
11 Returned to the criminal investigations program, which was
12 at the time, in late '89, a combined state and federal
13 task force located out of EPA's Region 10 Office, and then
14 I came back to Ecology's Northwest Regional Office in the
15 water quality program in late 1990 to start off as the
16 acting unit supervisor for the industrial permit unit in
17 the water quality program, and then later became the
18 permanent unit supervisor for the industrial permit unit
19 and held that capacity up until February of last year,
20 when I was appointed as the section manager for the water
21 quality program at the regional office.

22 Q And would you tell us briefly what your role in the SeaTac
23 third runway project is?

24 A Well, I actually have a long history with SeaTac airport,
25 going back I believe to 1992, when in my capacity as the

AR 055799

1 industrial unit supervisor, we were in the process of
2 renewing their NPDES permit, that's the National Pollutant
3 Discharge Elimination System permit, sometimes also
4 referred to as a 402 permit. So in my capacity as the
5 unit supervisor at the time I was supervising two permit
6 managers that we had assigned for the renewal of that
7 permit.

8 And then subsequent to that, we went through another
9 renewal of that permit, I believe that started in 1997,
10 with a different facility or permit manager at that time.
11 And starting I believe in 1999, when that facility
12 manager, Lisa Austin, left our agency employment -- Lisa
13 at the time was serving as the consultant, the water
14 quality technical lead on the 401 water quality
15 certification for the master plan improvements at SeaTac
16 airport. And so on Lisa's departure is when I took over,
17 since I was the unit supervisor it fell to me to take over
18 her role as that technical lead.

19 Q And have you been in that role since 1999, is that right?

20 A I've been in that role since 1999. When I took over as
21 section manager with the water quality program, I
22 delegated that role to the current unit supervisor,
23 John Drabek. And also right now we have a newly assigned
24 permit manager, his name is Ed Abbasi, who is an engineer
25 who is handling the NPDES permit management at SeaTac.

AR 055800

1 Q Now you've submitted prefiled testimony, is that correct?

2 A Yes, I did.

3 Q And I want to just ask you some things from your prefiled
4 testimony. In your testimony you offered the opinion that
5 it's difficult if not impossible to apply the numeric
6 water quality standards, for example, to storm water, is
7 that correct?

8 A That's correct.

9 Q Can you just kind of summarize your opinion in that
10 regard?

11 A Yes. What I tried to convey in that statement is that in
12 dealing with stormwater management and in trying to apply
13 actual numeric effluent limits to a stormwater discharge,
14 it is very difficult, because the science and art of doing
15 that has not been advanced to the stage that we currently
16 have in assigning numeric effluent limits to what I will
17 call steady state, not-as-variable types of discharges
18 like municipal wastewater and industrial process
19 wastewaters.

20 We have methods that are described in our permit
21 writer's manual. These methods have come to us with
22 guidance from EPA to derive numeric effluent limits or to
23 determine if we need numeric effluents limits for
24 municipal wastewater discharges and for process,
25 industrial wastewater discharges. One of those methods is

1 called the reasonable potential determination as to
2 whether or not we need to derive such numeric effluent
3 limits.

4 But we have no such methods as yet for storm water.
5 I believe this is one of the reasons why in dealing now
6 with management of storm water, the guidance that we have
7 from EPA is at this time not to press vigorously ahead to
8 try to derive those numeric limits but rather to provide
9 limits by way of best management practices, BMPs. And
10 that's what we've endeavored to do over the past -- at
11 least over the past two permit cycles with the Port's
12 NPDES permit.

13 Q You're familiar, I take it, with the Port's NPDES permit,
14 is that accurate?

15 A Yes, I am.

16 Q Does that permit contain effluent limitations?

17 A It contains not numeric effluent limits, but it contains
18 what I would describe as the effluent limit by way of
19 requirements for best management practices to be applied
20 to their stormwater discharges. That includes both source
21 control best management practices and treatment best
22 management, treatment BMPs, best management practices.

23 Q And I think you said that that approach is consistent with
24 guidance you have from the EPA?

25 A As I understand, guidance from EPA and guidance that we

1 also have in our permit writer's manual.

2 Q And in your opinion, is the Port out of compliance with
3 its NPDES permit with regards to stormwater discharge?

4 A With regards to their stormwater discharges, the Port is
5 currently applying the required best management practices
6 and also it is conforming with the monitoring and
7 reporting requirements that we have on their stormwater
8 discharges. They are in compliance with those conditions,
9 those requirements in their NPDES permit.

10 I would also like to say that in the monitoring that
11 we have in the present permit, the intent of that
12 monitoring is to evaluate the effectiveness of the BMPs
13 that they currently have in place, and if the monitoring
14 indicates a water quality problem, we use that as a
15 feedback mechanism to push ahead with what I would like to
16 call an adaptive management approach. Okay. If you're
17 noticing a particular subbasin where you are having
18 problems with runoff of copper, zinc, lead, or glycols,
19 for that matter, the monitoring reports back to us and to
20 the Port, as well, as to the fact that there may be a need
21 to step up additional source control measures, and also if
22 the source control measures are not adequate or the source
23 is too difficult to control, then there's the need to push
24 ahead with additional treatment best management practices
25 for that particular drainage.

AR 055803

1 Q Your prefiled testimony also discusses the water effects
2 ratio study. Can you just tell us what that is, please?

3 A Yes. The water effects ratio study is a study that is
4 done on the receiving water, as well as looking at
5 discharges to that receiving water, to see if there are
6 particular effects or conditions in that receiving water
7 that are contributing to what is called partitioning of
8 the metals, or how metals are partitioning between their
9 fractions of either the dissolved metals state or what is
10 the total or the particulate form of that metal, the form
11 of the metal that is not immediately bioavailable as the
12 dissolved metals state is.

13 And we have, in order to drive ahead with our efforts
14 to better understand the actual impacts of the Port's
15 stormwater discharges to the surrounding receiving waters
16 of Miller, Walker, and Des Moines Creeks, we have placed
17 in the 401 water quality certification a requirement to do
18 a water effects ratio study, one that meets the guidelines
19 that have been set forth both in our permit writer's
20 manual but also the EPA guidelines on conducting such a
21 study. And, again, it's to advance our knowledge as to
22 just exactly how metals in stormwater discharges would
23 behave in the receiving water.

24 I think this intelligently builds on previous
25 requirements that we have put on the Port in their NPDES

AR 055804

1 permit as opposed to this 401 water quality certification,
2 it intelligently builds on efforts we have going back to
3 their permit that was issued in '92 which required a
4 receiving water study. That receiving water study was
5 referred to -- I was here this morning and I heard that
6 receiving water study referred to a number of times, it
7 was the receiving water study that was done in 1997. And
8 then I also believe that it helps build and advance our
9 knowledge based on the stormwater monitoring that we've
10 had the Port do, you know, over the past several years, in
11 their current NPDES permit.

12 Q The 401 prohibits any discharges from new pollution-
13 generating impervious sources until the water effects
14 ratio study is complete, is that right?

15 A That's correct, yes. Any new impervious surfaces
16 associated with industrial operations of the Port need to
17 be -- or they would not be allowed to discharge any of
18 their industrial storm water from a new impervious surface
19 that is placed in where they would have industrial
20 operations like a runway.

21 Q Okay. That was the question, what does that prohibition
22 apply to, in your understanding?

23 A The prohibition applies to no discharge, no stormwater
24 discharge from an impervious surface that is associated
25 with any of their industrial operations, and until this

AR 055805

1 water effects ratio study is completed and accepted by
2 Ecology.

3 Q Does the 401 authorize any mixing zones with regard to
4 storm water?

5 A The 401 does not authorize any type of mixing zones
6 dealing with industrial stormwater discharges. There is
7 language in the 401 that references what is currently in
8 our state water quality standards dealing with mixing
9 zones associated with construction activity. If I recall
10 that language correctly from Washington Administrative
11 Code 173-201A, those mixing zones are only allowed for
12 instream construction activities that have a hydraulic
13 permit authorization from the Department of Fish and
14 Wildlife. That to my knowledge is the only, if you want
15 to say authorized mixing zone that's allowed in the 401
16 water quality certification. There is no authorization
17 given for a mixing zone for their current industrial storm
18 water.

19 Q Are you familiar with the target flow regime that would be
20 met by the Port in its comprehensive stormwater management
21 plan?

22 A Yes, I am. In fact, I work very diligently with other
23 staff at Ecology to insure that the target flow regime was
24 truly accounted for in the Port's stormwater management
25 plan. And that target flow regime is our means of making

AR 055806

1 sure that stormwater facilities that will go in as part of
2 this project, and even existing stormwater facilities at
3 the Port, would meet a target flow regime for all of the
4 surrounding watersheds of a predeveloped condition of
5 75-percent forested, I believe it's 15-percent pasture,
6 and then 10-percent impervious surface.

7 We arrived at this target flow regime by looking at
8 the Des Moines Creek basin plan -- that's basin plan and
9 study which was undertaken by researchers from the
10 University of Washington. And it is the conclusion of
11 that basin plan study that when you have existing before
12 you already highly disturbed urban streams, that this
13 target flow regime of 75-percent forest, 15-percent grass,
14 10-percent impervious surface is, according to that study,
15 the most beneficial type of flow regime, flow control,
16 that you want to have in order for that stream to
17 adequately recover.

18 And admittedly, this was only done on Des Moines
19 Creek, the study was only done on Des Moines Creek, but we
20 thought it made sense to apply it to both, to the other
21 surrounding watersheds, as well. And I think that that's
22 an enormous step forward, taking a facility the size of
23 SeaTac, you know, which is comparable to a small city, and
24 insuring that all new facilities go in beneath that target
25 flow regime and now even going forth to retrofit their

AR 055807

1 existing facilities, as well.

2 Q Let's shift gears there and talk about the fill criteria,
3 because that was addressed in your prefiled testimony as
4 well. Is that correct?

5 A Yes, it is.

6 Q What was the intent of those criteria?

7 A The intent of those criteria, you know, as we saw the
8 scale and magnitude of this project and saw sheer volume
9 of fill that would be brought in as part of the overall
10 master plan improvements, we wanted to insure that first
11 of all we had some safeguards and confidence that the fill
12 material brought in would not first of all violate a
13 standard that's set forth by the Army Corps of Engineers
14 in their 404 permit -- I believe the standard is no toxic
15 materials in toxic amounts to be used as fill in wetlands.

16 And then the other part of our thinking was, you
17 know, we wanted to insure that with all of this fill, a
18 lot of which was going to be imported onto the site, would
19 not present a risk to state surface waters or
20 groundwaters. To my knowledge, this is the first time
21 this has ever been attempted for any project in Washington
22 State, to put those types of conditions and requirements
23 on a project to insure that the fill material they are
24 bringing onto the site is in no way contaminated. And so
25 our thinking was that we would build the conditions in

AR 055808

1 such a way to require the -- well, that it would require
2 the Port to confine its fill sources to what would have
3 been determined to be uncontaminated fill sources. So
4 that is why in the 401 water quality certification we have
5 a part in there which discusses prohibited fill sources.
6 And we state in there that any site that has been found to
7 be contaminated from either a phase I or phase II site
8 investigation that that is a prohibited fill source, the
9 Port would have to look elsewhere. We go further to say
10 that another prohibited fill source, even remediated fill
11 material is prohibited from use, that is, fill material
12 that was once contaminated and now has been determined to
13 be cleaned up, we even prohibit that as a fill source.

14 And then our other effort is in recognition of the
15 fact that there are natural constituents in fill that may
16 present water quality problems, if they are at a certain
17 level of concentration in the soil. That is why we
18 endeavor to set up a criteria for natural constituents
19 that you find in soils, natural constituents including
20 metals like arsenic, lead, zinc. So in working with staff
21 from our toxics cleanup program, we built criteria for
22 these natural constituents that you might find in soil.

23 And to go even farther, to insure that both our
24 groundwater and surface waters were protected -- I would
25 like to characterize this as sort of a belt-and-

1 suspenders type of approach of where, you know, the belt
2 in this case is how we were prohibiting certain fill
3 sources from being considered in the first place, and then
4 moving on from there is even once you've found an
5 acceptable fill source that you would then have to do
6 further analysis to determine if there were natural
7 constituents in that fill source that would present a
8 problem, and that even those had criteria that that
9 uncontaminated fill source would still have to meet these
10 certain criteria.

11 Q The 401 specifies a certain number of samples that are
12 required of fill. Is that number adequate, in your
13 opinion?

14 A Well, it's based on -- could I turn to that part of
15 the 401?

16 Q Oh, sure. Exhibit 1 should be right in front of you.

17 A I believe it's on page 16 of 33.

18 Q Go ahead.

19 A Right. At the bottom of page 16 of 33, depending on the
20 volumes of fill material that are being taken, there's
21 listed on the other part of that table the minimum number
22 of samples that need to be taken. For example, if they
23 are taking less than a thousand cubic yards from a fill
24 source, they would have to take two samples. And my
25 thinking on this is that -- and again, this is based on

AR 055810

1 the criticism I've heard on the sampling regime is that it
2 does not have the necessary statistical rigor to truly
3 characterize that fill material.

4 But, again, what I want to get across here is that
5 these are in effect verification samples that we truly do
6 have an uncontaminated fill source that we're dealing
7 with, this would be samples that are taken on a fill
8 source that has already passed through a phase I and if
9 necessary a phase II site investigation. And what this is
10 telling us is essentially verifying for Ecology that
11 nothing was missed in the phase I, phase II site
12 investigation. So that is the way I regard the sampling
13 requirements. And again, going back to my analogy, and I
14 guess this is the suspenders part of the belt-and-
15 suspenders approach on acceptable fill criteria.

16 Q Now, does the 401 certification allow fill with TPH, total
17 petroleum hydrocarbons, in it to be used on the third
18 runway project?

19 A Yes, it does.

20 Q It does allow that?

21 A It does, because we have provided actual criteria for
22 gasoline, diesel, and heavy oils, because we've
23 established criteria in there, that is, where one could
24 assume that fill contaminated with TPH would be allowed.
25 And looking back on it now, I can see that that is a

AR 055811

1 reasonable assumption from this.

2 But in putting these unnatural constituents into the
3 criteria, it was an error in our logic in that you would
4 not have what are essentially man-made constituents on an
5 uncontaminated site. So point in fact is that the way I
6 designed the language on acceptable fill criteria, we
7 should never be getting or we should never be even
8 considering a site that's contaminated, and only a
9 contaminated site would have gasoline, diesel, or heavy
10 oils on it. So I will concede that by providing these as
11 criteria it does not follow in on our logic of prohibiting
12 contaminated fill sources.

13 Q So does the general prohibition then with regard to not
14 using contaminated sites prevent using fill with TPH in
15 it, is that what you're saying?

16 MR. EGLICK: Objection to form of the question.
17 Leading.

18 MS. COTTINGHAM: Restate your question.

19 Q (By Mr. Young) How does the prohibition of using only
20 naturally occurring fill relate then to the TPH that's set
21 forth in the criteria?

22 A Well, what's set forth in the criteria is actually, I
23 would call it -- if you look at the criteria on page 17 of
24 33, those are actually subsets of total petroleum
25 hydrocarbons, the gasoline, diesel, and heavy oils.

AR 055812

1 Q Well, I guess what I'm trying to ask you is, are those
2 things allowed on the site or not?

3 MR. EGLICK: Object as to form of the question.
4 Vague.

5 MS. COTTINGHAM: I'll overrule that.

6 A No. My interpretation is that because we are prohibiting
7 contaminated fill sources, fill that is contaminated from
8 a man-made source or human origin, which would be for
9 gasoline, you know, human origin, or if you have gasoline,
10 diesel, and heavy oils it's a good bet that you have human
11 origin for that contamination, that our prohibition of not
12 even considering the contaminated sources for use as fill
13 materials would eliminate that. If you had a phase I and
14 phase II site investigation that indicated that you had a
15 site contaminated with gasoline, diesel, and heavy oils,
16 because these are not naturally occurring constituents,
17 they would not be considered as acceptable fill materials.

18 Q Coming back then for a second to the WER study, the water
19 effects ratio study. Is that in your opinion a lessening
20 or will it lead to a lessening or relaxation of the water
21 quality study?

22 A No, it will not.

23 Q And why do you say that?

24 A The reason I say that is a water effects ratio study is to
25 determine if there are seasonal and local conditions in

AR 055813

1 that water body which may affect how that partitioning of
2 the metal is actually occurring in that water body. So
3 the standards still apply, our standards are for total
4 dissolved metals. What the water effects ratio study
5 provides you with is an accurate, for lack of a better
6 term I'll use an accurate local translator as to how that
7 metal, whether it be copper, lead, zinc, how that metal is
8 actually behaving in the receiving water, what that whole
9 entire complexity there is of, you know, the stormwater
10 discharge combining with the receiving water and how that
11 metal, if it's in particulate form, how that metal that's
12 in particulate form, how much of that is actually going or
13 may go into the dissolved and therefore bioavailable
14 state, but it does not lesson our standards, again,
15 because our standards, for example, for copper, that is
16 for both acute and chronic, that's a dissolved, that's
17 based on the dissolved state of copper.

18 MR. YOUNG: Thank you. I have no further
19 questions for Mr. Fitzpatrick.

20 MS. COTTINGHAM: Mr. Pearce.

21 MR. PEARCE: We have no questions. Thank you.

22 MR. EGLICK: Thank you.
23
24
25

AR 055814

EXAMINATION

BY MR. EGLICK:

Q Good morning, Mr. Fitzpatrick. I'm Peter Eglick from
Helsell Fetterman. I represent Airport Communities
Coalition.

Do you have the exhibit 401 in front of you?

A Yes, I do.

Q Can you look then, once again, at Exhibit 1, page 17?

A Page 17 of 33?

Q Yes. Do you see where it says "fill criteria"?

A Yes, I do.

Q Do you see the sentence that says: The results of the
phase II environmental site assessment sampling and
testing shall be compared to the fill criteria to
determine the suitability of the fill source for
Port 404 projects?

A Correct.

Q So what fill criteria is that referring to, isn't it
referring to the fill criteria that follow?

A Yes, it does.

Q And isn't the sampling that is done for this phase II
environmental assessment -- do you see the word "sampling"
in that sentence we just read?

A Correct.

Q Isn't that sampling covered by the protocol and the number

AR 055815

1 of samples that's on the bottom of the previous page, page
2 16?

3 A Yes, it is.

4 Q So the phase II is as good or as bad as it is, depending
5 on how good or bad, for example, the number of samples
6 are, is that correct?

7 A Right. And you would be into a phase II, if your phase I
8 site investigation indicated that you may be dealing with
9 a contaminated site. That's my understanding.

10 Q Can you show me where in the 401 here it describes what is
11 required for a phase I?

12 A If you will turn to page 15 of 33.

13 Q Right.

14 A Then if you'll go down under documentation.

15 Q Right.

16 A The sentence begins with: The environmental assessment
17 shall be conducted by an environmental professional in
18 general conformance with the American Society for Testing
19 and Materials Standard ASTM E 1527-00, standard practice
20 for environmental site assessments.

21 Q And then it lists a number of components that are
22 required, doesn't it?

23 A Yes, it does.

24 Q One of those is fill source description. Is that correct,
25 do you see that on number (i)?

AR 055816

1 A Yes.

2 Q Okay. That's a piece of paper where someone describes
3 where the fill came from, is that correct?

4 A Yes.

5 Q The next thing that's required, (ii), is a records review,
6 is that right?

7 A Correct.

8 Q Someone looking at some paper and saying this is where
9 this supposedly came from, is that correct?

10 A Well, more than -- it's not so much of where it came from,
11 it's more of a characterization of the site district.

12 Q Okay. then (iii), following on page 16, do you see that,
13 site reconnaissance?

14 A Yes.

15 Q That involves going out and visiting the site, is that
16 correct?

17 A Correct.

18 Q Okay. You don't get to sampling, do you, till you get
19 down to (iv) or small roman (iv), do you?

20 A Correct.

21 Q Okay. And when you get to sampling, the sampling you're
22 going to do is going to be under this protocol that says
23 even for greater than a hundred thousand cubic yards you
24 only do six samples, is that correct?

25 A Correct.

AR 055817

1 Q So there's no sampling whatsoever as part of this 401 that
2 requires more than six samples, even for greater than a
3 hundred thousand cubic yards of imported fill, is that
4 correct?

5 A That's correct.

6 Q Now, let me ask you a question. Are you the person who
7 drafted the fill criteria?

8 A I assisted in the drafting of the fill criteria, yes.

9 Q Are you able to explain to the rationale for them or did
10 you rely on others' recommendations for that?

11 A I relied on the recommendations of others.

12 Q You're not an engineer, are you?

13 A No, I'm not.

14 Q Are you a modeler? Do you know what I mean by modeler,
15 someone who runs the HPSF model or whatever it is, HSPF?

16 A HSPF. No, I'm not.

17 Q You don't do that?

18 A No.

19 Q Very few of us do, I think. Okay.

20 What about in terms of your expertise, have you ever
21 actually designed a stormwater treatment system?

22 A No, I have not.

23 Q Are you speaking here today for the Department of Ecology?

24 A Yes, I'm an employee of the Department of Ecology, yes, I
25 am speaking for the Department of Ecology.

AR 055818

1 Q Did you write your testimony, all of it?

2 A Yes, I did.

3 Q So that testimony is testimony of the Department of
4 Ecology, you're speaking on their behalf, is that correct?

5 MR. YOUNG: I object. It calls for a legal
6 conclusion.

7 MR. EGLICK: Well, Mr. Luster was asked, I
8 believe, by Ecology counsel whether he could speak for
9 Department of Ecology. I'm asking Mr. Fitzpatrick the
10 same question.

11 MR. YOUNG: You objected to that question.

12 MR. EGLICK: I assumed if it was asked it was an
13 unobjectionable question.

14 MS. COTTINGHAM: I'm going to sustain the
15 objection because it's not clear as to your definition of
16 the word "behalf".

17 MR. EGLICK: Okay.

18 Q Are you authorized to give statements concerning the
19 policies of the Department of Ecology here today?

20 A Policy is a very broad -- what policy?

21 Q Concerning the 401 certification and the decisions that
22 went into it?

23 A I am only authorized to speak to policy as it relates to
24 policy out of the water quality program.

25 Q So that would be where you would draw the line, so to

AR 055819

1 speak?

2 A Yes.

3 Q Thank you.

4 Would you explain your understanding of the
5 difference between a Clean Water Act section 401
6 certification and a Clean Water Act section 402, that is,
7 NPDES permit?

8 A What my understanding of those differences may be?

9 Q Yes.

10 A Well, I think the first clear difference for me is that
11 the 401 water quality certification is a certification by
12 the state that the project is in conformance with the
13 local water quality laws and regulations of the state.
14 It's a certification, the testing for that, it is not a
15 permit per se, the way that a 402 or NPDES permit is. An
16 NPDES permit is a permit for the discharge of wastewater,
17 and depending on what that wastewater source is, it could
18 be storm water, industrial process wastewater, or
19 municipal wastewater, to surface waters of the state. In
20 the case of the 402 permit for the State of Washington, we
21 have been delegated to administer that national permit
22 program by the Environmental Protection Agency.

23 Q Now it's true isn't it, that a 401 certification does not
24 involve an iterative process, it's a one-time only
25 certification, isn't that correct?

AR 055820

1 A I don't know if I would agree with that characterization
2 because you can put conditions -- my understanding is that
3 you can put conditions into a 401 water quality
4 certification that essentially follows that project over
5 for some time, and in the case of such as this, where we
6 have an existing 402, NPDES permit, you can link or use
7 conditions in the 401 water quality certification to hook
8 into or link into the more iterative types of processes
9 that you would see in a 402 permit.

10 Q So would it be correct then to say that when you state in
11 your prefiled testimony that there was reasonable
12 assurance for issuance of a 401, you're basing it on the
13 understanding that you've just described of what a
14 401 certification means, is that correct?

15 A That would be correct, yes.

16 Q Okay. Would you agree that right now there are not water-
17 quality based limits for storm water in the Port's current
18 NPDES permit?

19 A Yes, I would agree.

20 Q Would you agree that monitoring and testing to determine
21 compliance with the water quality standard for turbidity
22 is a technically simple matter?

23 A Could I back up on my last response?

24 Q Well, I think you can back up with your counsel, if you
25 wish. I would like you to answer the question on the

AR 055821

1 floor.

2 A Yes, that is a relatively simple matter and --

3 Q Okay. That's fine.

4 MR. PEARCE: Ms. Cottingham, I object to
5 Mr. Eglick cutting off the witness. If the witness feels
6 it needs a more elaborate response, it is responsive.

7 MR. EGLICK: Well, it was a simple yes or no
8 question.

9 MS. COTTINGHAM: Similar to earlier rulings, if
10 the question is simple and stated simply for yes or no,
11 the witness shall try to maintain a yes or no response.
12 You can bring it out in cross-examination.

13 Q (By Mr. Eglick) Mr. Fitzpatrick, are you asserting that
14 there's an exception for storm water in the Clean Water
15 Act and in the state water quality standards so that
16 stormwater discharges are not subject to the obligation of
17 meeting the state water quality standards numeric effluent
18 limitations?

19 MR. PEARCE: It calls for a legal conclusion.

20 MR. EGLICK: He administers the program and I'm
21 asking for his understanding, I'm not asking him for
22 anything else.

23 MS. COTTINGHAM: I'll allow the question, for
24 his understanding.

25 A Could I have the statement?

AR 055822

1 Q Absolutely, it's the same one asked at your deposition.
2 Is it your assertion that there's an exception for
3 storm water so that stormwater discharges are not subject
4 to the obligation of meeting state water quality standards
5 numeric effluent limitations?
6 A A stormwater discharge does have to meet our water quality
7 standards.
8 Q And does that include the numeric effluent limitations?
9 A There are no numeric effluent limitations established in
10 their permit.
11 Q Well, I'm talking about the effluent limitations of the
12 water quality standards of the State of Washington.
13 A Those are not effluent limitations. Those are water
14 quality standards.
15 Q I'm sorry, you're correct. The question is, are you
16 saying that the storm water from the Port of Seattle
17 SeaTac does not have to meet the water quality standards
18 in the State's regulations?
19 A No. They do have to meet the water quality standards and
20 that is what we're striving to do with their NPDES permit.
21 Q Does that include the numeric limitations in the state
22 water quality standards?
23 A Again, those are not limitations, those are standards.
24 Q Does that include the numeric standards in the state
25 regulations for water quality?

AR 055823

1 A Yes, it does.

2 Q Those must be met for storm water by the Port of Seattle
3 for SeaTac airport, is that correct?

4 A They must be met, but we have to advance our knowledge to
5 know how they can be met.

6 Q Okay. Does Ecology know now whether the Port's discharges
7 are causing -- and I'm asking you about exceedances of
8 water quality criteria in receiving waters at the airport
9 site?

10 MR. PEARCE: Objection. No foundation as to
11 what exceedances means.

12 Q (By Mr. Eglick) Then what does an exceedance mean,
13 Mr. Fitzpatrick, an exceedance over water quality
14 criteria?

15 A The exceedance is defined in the regulation, in WAC
16 173-201A.

17 Are you referring to an acute criteria exceedance?

18 Q I'm talking about exceedance in the sense that the
19 regulations, would you agree, say that if you are
20 discharging at a number, at a value higher than the
21 standard set, that's considered an exceedance, is that
22 correct?

23 A But, again, the criteria are defined as concentrations
24 of -- in the case of copper, you're talking about
25 concentrations of the dissolved metal state of copper for

AR 055824

1 a one-hour average concentration.

2 Q I don't think that's responsive so my question,
3 Mr. Fitzpatrick. I understand --

4 MR. PEARCE: Objection. Argumentative.

5 Q (By Mr. Eglick, continuing) that may be something that you
6 need to consider in determining whether there's
7 exceedances. My question is, are you of the opinion or
8 the understanding that Ecology doesn't know whether the
9 Port's discharges are now causing exceedances of water
10 quality criteria in receiving waters at the airport?

11 MR. PEARCE: I object. It's compound.

12 MS. COTTINGHAM: Rephrase the question.

13 Q (By Mr. Eglick) Ecology is aware that the Port has various
14 discharges at the airport site, is that correct?

15 A Correct. They have stormwater discharges from their
16 industrial operations, they have stormwater discharges
17 from their construction activity, and they have an
18 industrial wastewater discharge from their industrial
19 operations.

20 Q Let's talk about nonconstruction storm water for a moment.
21 Is that a term you're familiar with?

22 A Correct.

23 Q And you know what the term "exceedances" means, is that
24 correct?

25 A I know what it means for myself. I don't know what it

AR 055825

1 means for you.

2 Q Use it in the way that you use it then and understand it
3 that way. And my question is: For nonconstruction storm
4 water at the airport, does Ecology know whether the Port
5 is exceeding water quality standards?

6 A We don't know if they are or if they are not.

7 Q Thank you.

8 A May I add something?

9 Q I think you can answer your counsel, if he wants to ask.

10 MS. COTTINGHAM: Wait for cross-examination.

11 THE WITNESS: I'm sorry.

12 Q (By Mr. Eglick) With regard to the 401, I think you've
13 testified that there are various provisions included that
14 Ecology believes will improve the handling of
15 nonconstruction storm water at the airport over the years,
16 is that correct?

17 A Right.

18 Q Okay. And some of those I think you've testified
19 previously in your deposition are going to be included as
20 part of a new 402 permit, an NPDES permit, that Ecology is
21 going to write, is that correct?

22 A Correct. The 402 permit, the NPDES permit, is up for
23 renewal and reissuance in June of this year.

24 Q And typically when you write a new permit, you include a
25 compliance schedule, don't you?

AR 055826

1 A Compliance schedules can be included in an NPDES permit,
2 correct.

3 Q And when was the first NPDES permit that you were involved
4 in for the airport, did you say?

5 A I believe the first NPDES permit that I was involved with
6 was the renewal and reissuance of a permit that we issued
7 in 1992.

8 Q Okay. And you're talking now about issuing one in 2002, a
9 revised -- or a new NPDES, not a revised but a new one, is
10 that correct?

11 A Correct.

12 Q And isn't it true that the compliance schedule under your
13 regulations for this new permit could be as long as twelve
14 years?

15 A Well, our water quality standards -- our water quality
16 standards allow for compliance schedules or a compliance
17 schedule on -- if you're referring to the development of
18 final or meeting final effluent limitations, my
19 recollection is that in our standards we can build a
20 compliance schedule that would give up to twelve years to
21 meet final effluent limitations that may be developed.

22 Q Right. And in fact wouldn't it be true that the twelve
23 years wouldn't even start until you had settled the pond
24 -- what the final stormwater effluent limits would be,
25 would it?

AR 055827

1 MR. PEARCE: Objection. Assumes facts not in
2 evidence.

3 MS. COTTINGHAM: I'll overrule that.

4 A Well, I guess that assumes that we would take the entire
5 twelve years. I mean --

6 Q That was what my question asked: It could be as long as
7 -- would it be helpful if I read you the question and
8 answer in your deposition?

9 A Certainly.

10 Q Okay.

11 Question: And that's twelve years starting when?

12 Answer: That would be twelve years starting when we
13 put on what we put on what we know to be final stormwater
14 effluent limits.

15 Question: So it could have been as much as twelve
16 years from a date that hasn't even happened yet?

17 Answer: That's my understanding, yes.

18 Is that still your testimony?

19 A I would correct that in saying that we don't need to allow
20 for the entire twelve years. If we have evidence
21 available to us or, you know, circumstances that are
22 presented to us that it is feasible for the facility to
23 meet those final effluent limits in less than twelve
24 years, then we would endeavor to build a compliance
25 schedule that would have them meet those final effluent

AR 055828

1 limitations in the minimum amount of time possible.

2 Q You don't have that information right now, though, do you?

3 MR. PEARCE: Objection, vague.

4 MS. COTTINGHAM: Can you be a little clearer in
5 your question.

6 Q (By Mr. Eglick) I think, Mr. Fitzpatrick, you've said that
7 if you had information that showed that those final
8 effluent limitations could be met in less than twelve
9 years, then that would affect this compliance schedule
10 that we're talking about. My question to you is, do you
11 have such information now that shows that the effluent
12 limitations can be met on a compliance schedule of less
13 than twelve years?

14 MR. PEARCE: Your Honor, I renew the objection.
15 I'm not clear, are we talking about something in general
16 or a specific permit?

17 MR. EGLICK: We're talking about the stormwater
18 effluent limits that Mr. Fitzpatrick has suggested will be
19 placed on the facility as a result of a new NPDES permit
20 that has not yet been written. Which is what he has
21 testified to.

22 A Okay. I believe I've also said that we currently have
23 stormwater effluent limits in the NPDES permit. Those are
24 the BMPs. If you're referring to final numeric stormwater
25 effluent limits -- is that what you're referring to?

AR 055829

1 Q Is that what you're referring to when you talk about
2 writing a new NPDES permit with stormwater effluent limits
3 that are going to be different than those that you're
4 currently operating under at the airport?

5 A What we do envision with the reissuance of the next NPDES
6 permit is building toward taking the next step here from
7 simple application of BMPs as effluent limits to actually
8 building toward water quality based effluent limits.

9 Q And that's the process that could take twelve years or
10 more, is that correct?

11 A No, not twelve years or more; it can take up to twelve
12 years, is my understanding.

13 Q Thank you. I did want to ask you a question also about
14 the stormwater runoff from the airport. Is it your
15 understanding that runoff from the runways goes into the
16 industrial wastewater system, or it goes elsewhere?

17 A Runoff from the runways?

18 Q Yes.

19 A Well, part of the runways and taxiways do go into the
20 industrial wastewater system. But I believe the majority
21 of the runoff from the runways goes into their stormwater
22 system.

23 Q And that will be true for the third runway as well, will
24 it, if it's built?

25 A My understanding is that, yes, the majority of that

AR 055830

1 drainage from the new runway, from the third runway, would
2 go into their stormwater system and not into their
3 industrial wastewater system. Their industrial wastewater
4 system is designed as a slough drain system, mostly around
5 the gates of the airport and the maintenance hangers of
6 the airport, to collect and convey stormwater runoff and
7 runoff from aircraft de-icing operations into the
8 industrial wastewater system.

9 Q So most of the runoff from the new third runway, as is the
10 case with the existing runways, will go to the stormwater
11 system, is that correct?

12 A That's correct.

13 Q And the runways is one of the sources of copper that we've
14 all been talking about, noted in some of the sampling from
15 the airport, is that correct?

16 A There is data that indicates that there is copper present
17 in the stormwater runoff from the existing runways.

18 Q Okay. And Ecology has known for at least the last four
19 years that the water quality criterion for copper is not
20 being met in receiving waters at the airport site, isn't
21 that correct?

22 A No, that's not correct.

23 Q Okay. You recall when you were deposed on January 16,
24 2002?

25 A Yes.

AR 055831

1 Q And you were under oath?

2 A Yes.

3 Q And you were asked a question: So the water quality
4 criteria for copper is not being met in the receiving
5 water and Ecology acknowledges that four years ago based
6 on information it had five years ago.

7 Answer: Uh-huh, yes.

8 That's on page 101 of your deposition. Do you recall
9 that?

10 A I recall it now that you've read it back to me.

11 Q That's your testimony, isn't it?

12 A Yes.

13 Q Okay. I wanted to ask you something about the fill
14 criteria, and I believe the person that you worked with on
15 that was Chung Yee, is that correct?

16 A Yes, it is.

17 Q And isn't it a fact that whatever your position is on the
18 fill criteria is based on your reliance on Chung Yee's
19 expertise and judgment, isn't that correct?

20 A As it regards to development of the fill criteria, do you
21 mean the final -- could you ask the question again,
22 please.

23 Q Yes. Maybe I'll ask it in a way that hopefully will be
24 clearer, and I apologize for that.

25 The fill criteria that are ultimately incorporated

AR 055832

1 into the 401 were based on a recommendation made by
2 Chung Yee to you, is that correct?

3 A Made to me and also to the person who wrote the 401 water
4 quality certification, Ann Kenny.

5 Q And you accepted Chung Yee's recommendation, is that
6 correct?

7 A That's correct.

8 Q And with regard to analyzing the rationale of why one
9 sampling protocol, for example, rather than another was
10 accepted, you relied on Chung Yee, didn't you, for the
11 rationale?

12 A Yes, I did.

13 Q So Chung Yee would be the man to ask, is basically what
14 I'm asking, about the rationale, is that correct?

15 A Yes.

16 Q Could you take a look for a moment at Tom Luster's
17 prefiled testimony. Do you have it up there?

18 MS. COTTINGHAM: Mr. Eglick, can I get a sense
19 as to how much time you think you'll be on
20 cross-examination?

21 MR. EGLICK: Probably about ten more minutes.

22 MS. COTTINGHAM: Okay. Just so you know, the
23 Board members probably do not have Mr. Luster's prefiled
24 in front of us. Do we need that?

25 MR. EGLICK: Well, I suppose it wouldn't hurt.

1 It's not a diplomatic way to put it.

2 MS. COTTINGHAM: Why don't we take our lunch
3 break because most of us are keeping the prefileds in our
4 office.

5 MR. EGLICK: I'm always ready for lunch, so I
6 appreciate that.

7 MS. COTTINGHAM: So let's go off the record.
8 Be back at 1:30:

9 MS. PASCHAL: Ms. Cottingham, I have a quick
10 question about a witness for this afternoon, and that is
11 Mr. Garland. And pursuant to the order you issued
12 yesterday, I'm curious to whether we should redact his
13 prefiled testimony or how we should deal with the written
14 portion of his testimony.

15 MR. YOUNG: May I comment on that?

16 MS. COTTINGHAM: Are we on the record still?

17 Good.

18 Your response?

19 MR. YOUNG: I would like to leave his testimony
20 as it is rather than redacting it, as an offer of proof,
21 so that the Board can disregard it. I understand the
22 ruling and I'm not trying to change that. I would like to
23 leave that in the record as an offer of proof so that if
24 we go on appeal that we can deal with it, so it will be in
25 the record and the court of appeals will know what it is

1 and so on.

2 MS. PASCHAL: Ms. Cottingham, I'm of the opinion
3 this represents what we believe should be taken out. This
4 is a significant amount of testimony that we believe
5 should be stricken as a result of your ruling yesterday.

6 MS. COTTINGHAM: I will take this under
7 advisement over lunch. If you could make sure I have a
8 copy with the pink on it.

9 MR. EGLICK: One suggestion, maybe we could
10 have something where the Board gets what's redacted, but
11 the unredacted is sealed and put in the file for future
12 use by a court or something, and that way the record is
13 preserved, if that's what the concern is. I understand
14 counsel's concern to preserve his record for appeal, so
15 that might be a way to go.

16 MS. COTTINGHAM: I think what I would like to do
17 is to not officially redact it in the documents that sit
18 down below me here, but it would be good for the Board to
19 have a copy of what you believe should be redacted after
20 reviewed by Mr. Young.

21 And with that we'll take a lunch break till 1:30.

22 (Noon recess).

23 MS. COTTINGHAM: We're back on the record.

24 I believe we've all picked up the prefiled testimony
25 that you were going to use.

AR 055834

1 MR. EGLICK: Thank you very much.

2 MS. COTTINGHAM: You're still under oath.

3 THE WITNESS: Okay.

4 Q (By Mr. Eglick) Mr. Fitzpatrick, do you recall in your
5 testimony saying that Ecology never conducted a reasonable
6 potential analysis of the Port's stormwater discharges?

7 A Correct. I believe I said that Ecology --

8 Q I'll read you the sentence, if it'll help: Ecology has not
9 conducted a reasonable potential analysis of the Port's
10 stormwater discharges. Page ten, line four.

11 Do you recall that?

12 A This is from my deposition?

13 Q No, this is from your prefiled testimony, page ten, line
14 four.

15 A Now this is on my prefiled testimony, page ten, line four?

16 Q I'm sorry, I hope I have --

17 MS. COTTINGHAM: Why don't you hand him the
18 notebook, because he is not reading out of the notebook.

19 MR. EGLICK: Ms. Cottingham, I may ask for an
20 adjustment?

21 MS. COTTINGHAM: Stop the clock.

22 MR. EGLICK: Thank you.

23 Q It's your heading, roman VI, in bold, that's "reasonable
24 potential analysis not done," it's in bold-face letters.
25 Do you see --

AR 055835

1 A Yes. Okay. And then line four.

2 Q Ecology has not conducted --

3 A Ecology has not conducted a reasonable potential analysis
4 of the Port's stormwater discharges. Correct.

5 Q Isn't it true that Ecology in fact wrote to Port counsel
6 at Foster Pepper in 1998 and stated in fact that based on
7 data provided to Ecology by the Port and on the reasonable
8 potential analysis conducted by the Port and Ecology, the
9 Port's proposed BMPs clearly do not satisfy this
10 condition? Referring to a condition of the '98 401.
11 Isn't that true?

12 MR. YOUNG: I object as being based on facts not
13 in evidence.

14 MR. EGLICK: I'm allowed to ask the question, he
15 can tell us whether he knows.

16 MS. COTTINGHAM: You referred to something else.
17 If you could point to what you are referring to.

18 MR. EGLICK: What I'm referring to is an
19 impeachment document. I can hand out copies, if you would
20 like. But when we got this witness's prefiled testimony
21 we were surprised to see the statement in it, and we have
22 managed to locate and identify an impeachment document,
23 which I am happy to have marked.

24 MS. COTTINGHAM: And it's not currently part of
25 the exhibit?

AR 055836

1 MR. EGLICK: That's correct, because it's
2 impeachment. I would be happy to have it marked.

3 MS. COTTINGHAM: I'll overrule the objection.

4 MR. EGLICK: Would you like me to --

5 MR. PEARCE: I would object to the entry of a
6 new exhibit, Your Honor. We've had many months to
7 identify exhibits, including impeachment exhibits.

8 MR. EGLICK: Well, we don't know that have to
9 impeach until we see the prefiled testimony which we got
10 on March 7th, and our last exhibit was February 20th.

11 MS. COTTINGHAM: I'm not sure that he's offered
12 this as an exhibit yet. So if and when he offers it as an
13 exhibit, you can make your objection.

14 MR. PEARCE: Thank you, Your Honor.

15 Q (By Mr. Eglick) If you would, please, Mr. Fitzpatrick,
16 could you turn to page -- well, first of all, as you can
17 see the cover, it's a letter to Tayloe Washburn at Foster
18 Pepper, do you see that?

19 A Yes.

20 Q Do you see on the last page it's signed by Tom McDonald,
21 Assistant Attorney General?

22 A Yes.

23 Q Do you see on the back to the first page, he refers in the
24 first paragraph to the Department of Ecology as his
25 client, do you see that?

AR 055837

1 A Yes.

2 Q Okay. Then if you could look at page two, section A-1,
3 bullet one. Do you see that?

4 A Section A-1 bullet one, yes.

5 Q Then do you see the sentence that says "however," do you
6 see that?

7 A Yes.

8 Q Can you read that please.

9 MR. YOUNG: I object to questioning this witness
10 about this document when there's been no foundation laid
11 that he has ever seen this or received it or knows
12 anything about it.

13 MS. COTTINGHAM: I sustain that objection. Can
14 you lay a foundation?

15 MR. EGLICK: It is an admission of a party
16 opponent and also a prior inconsistent statement by a
17 party, and he is representing that party here today, the
18 Department of Ecology. So I think it is appropriate, but
19 certainly I'll ask Mr. Fitzpatrick --

20 Q You know who Tom McDonald is, don't you?

21 A Yes, I do.

22 Q And Mr. McDonald is one of the attorney generals who has
23 represented the Department of Ecology, isn't that correct?

24 A Yes, in the past he has.

25 Q And you have no reason to believe he would misrepresent

AR 055838

1 the Department of Ecology's position do you?

2 A No, I have no reason to believe he would misrepresent our
3 position.

4 MR. EGLICK: Well, what more can I do. This is
5 an impeachment exhibit he has put in his prefiled
6 testimony that something didn't happen that the attorney
7 general has written to Foster Pepper did happen.

8 MS. COTTINGHAM: I'm not sure you've put the
9 link yet between this witness and the --

10 MR. YOUNG: Can I just say that I don't believe
11 you can impeach him with something that somebody else
12 wrote.

13 MR. EGLICK: You can if they represent the same
14 party, because then it's an admission of a party opponent
15 for a prior inconsistent statement by a party. And this
16 gentleman is representing Ecology, Mr. McDonald was
17 representing Ecology; if it had to be the exact same
18 person when you're dealing with a governmental entity it
19 would be hard to impeach because each governmental entity
20 has many different people who could show up at a hearing
21 and if you have to get the exact one who wrote a
22 particular letter on behalf of the Department it would be
23 tough.

24 MS. COTTINGHAM: I still don't think you've made
25 the link between this document and this witness. You

AR 055839

1 might be able to do that, so why don't you continue.

2 MR. EGLICK: Okay. Thank you.

3 Q Mr. Fitzpatrick, were you involved in the 401
4 certification in 1998?

5 A No, I was not.

6 Q But do you know who was involved in the 401 certification
7 in 1998?

8 A Yes. Lisa Austin.

9 Q Okay. And what was Lisa Austin's name before it was
10 Lisa Austin?

11 A It was Lisa Zinner.

12 Q And have you ever seen, by the way, this document before?

13 A No, I have not.

14 Q Have you reviewed the department's file on the 401
15 certification in 1998?

16 A Not in its entirety.

17 Q Well, did you go back and check before you made the
18 statement in your prefiled testimony that there had been
19 no reasonable potential analysis of the Port's stormwater
20 discharges, did you go back and check to see what had been
21 done as part of the 1998 401 certification?

22 A I went back to check if our department had ever done a
23 reasonable potential analysis.

24 Q And how did you check that?

25 A I went back through our NPDES permit file.

AR 055840

1 Q Did you go back on the 401 certification?

2 A No, I did not.

3 Q You're here testifying today about a 401 certification,
4 aren't you?

5 A Yes, I am.

6 Q As far as you know, wasn't Tom McDonald representing the
7 department in 1998 concerning the 401 certification for
8 the Port?

9 A He was the attorney general assigned at the time to
10 Ecology on the 401 process that was then ongoing with the
11 Port.

12 MR. EGLICK: Okay. It's a prior inconsistent
13 statement of a party. Mr. McDonald, as Mr. Fitzpatrick
14 has just said, was representing Ecology, and
15 Mr. Fitzpatrick has already told us earlier that he is
16 representing Ecology. Evidence Rule 801 would allow it in
17 on that basis. I think that there's very little more that
18 could be done in this circumstance because we obviously
19 can't subpoena and bring in Mr. McDonald. But this
20 witness came in and offered testimony purportedly based on
21 his personal knowledge and we have a document submitted on
22 behalf of the same agency that says exactly the opposite
23 thing.

24 MR. PEARCE: I disagree with that. I don't
25 think it says the opposite thing.

AR 055841

1 MR. YOUNG: It's not from the same agency,
2 either.

3 MS. COTTINGHAM: Consistent with my ruling on
4 the motion to publish the depositions, Mr. Fitzpatrick was
5 identified as representing the department for the narrow
6 purpose, water quality I believe was the purpose for
7 representing the department, and on that basis I will
8 allow this document in. And we need to give it a number.

9 MS. ISAACSON: 803.

10 MR. EGLICK: Thank you.

11 (Exhibit No. 803 marked for identification).

12 Q Can I ask you then, Mr. Fitzpatrick, if you would, to look
13 at Exhibit 708?

14 A Yes.

15 Q Okay. And could you read the first sentence of
16 Exhibit 708, please. ?

17 A I'm sorry, read where?

18 Q The first sentence of Exhibit 708?

19 A The memo is to describe the results of the reasonable
20 potential analysis that was performed for the STIA third
21 runway.

22 Q STIA means Seattle Tacoma International Airport, is that
23 right?

24 A Yes.

25 Q Then doesn't the next sentence refer to Lisa Zinner of

AR 055842

1 Ecology as participating in that analysis?

2 A Correct. It's says the analysis was done in a working
3 meeting by Lisa Zinner, Lori Terry, Don Hubbard,
4 John Rodgers.

5 Q And Lisa Zinner is a person who used to work for Ecology,
6 I believe you mentioned in your direct testimony, on
7 airport matters, is that correct?

8 A Correct.

9 Q And then she got married and her name changed to
10 Lisa Austin, is that correct?

11 A Yes.

12 Q Thank you.

13 Now I did want to ask you a couple of other questions
14 quickly, now that we have Tom Luster's testimony queued
15 up. I know in your testimony you suggested that -- I'm
16 looking at page 11, paragraph 22, et seq, of your
17 testimony, you have a big, bold heading there, if you
18 would locate that, "The Cascade Pole NPDES Permit is
19 Irrelevant". Do you have that?

20 MS. COTTINGHAM: Would you please get us to the
21 right --

22 MR. EGLICK: Yes, ma'am. It's page 11 of
23 Mr. Fitzpatrick's prefiled testimony and it's
24 paragraph 22, et seq.

25 Now do you see where you say that, Mr. Fitzpatrick?

AR 055843

1 A Page 11?

2 Q That's right.

3 A Correct.

4 Q Okay. Then if you go down to lines 18 and 19 on your
5 testimony, do you see where you say: The challenges of
6 source control on one specific industrial pollutant
7 source, though significant, pale in comparison --

8 Do you see all of that?

9 A Correct.

10 Q What's the particular industrial pollutant source you're
11 talking about, is it pentachlorophenol?

12 A From a wood treating operation, yes.

13 Q Now, if you look over at Mr. Luster's prefiled testimony
14 on page 19. Now Mr. Luster -- and my hat is off to
15 Ecology for using numbered lines and next time we'll do
16 the same. But in any event, on page 19 of Mr. Luster's
17 testimony, about six or seven lines down, Mr. Luster gives
18 a list of all of the pollutants that are addressed in the
19 Cascade Pole NPDES permit. Do you see that?

20 A Yes, I do.

21 Q You're not saying that list is inaccurate, are you?

22 A No, I'm not.

23 Q And isn't it true that, for example, in the Cascade Pole
24 NPDES, copper has a specific numeric limit for storm
25 water, effluent limit for storm water?

AR 055844

1 A Right now I cannot recall.

2 Q Okay. So whatever the permit says, though, tells, you're
3 not in a position to deny it, are you?

4 A No.

5 Q Isn't it true in the Cascade Pole NPDES that limit is
6 applied based on a grab sample, isn't it?

7 A Again, I do not know the particular -- that depth of
8 detail on that NPDES permit.

9 Q So did you look at the NPDES permit before you wrote your
10 prefiled testimony? It was attached as Exhibit D to
11 Mr. Luster's. Did you look at it?

12 A Yes, I did. I reviewed it soon after it was issued, soon
13 after it was issued by the Department of Ecology.

14 Q Okay. And it hasn't been amended, has it?

15 A No, I don't believe it has.

16 Q Let me ask you, we were talking about the WER study,
17 W-E-R-S, would you tell us what WERS is?

18 A Water effects ratio study.

19 Q And that study is something that you anticipate is going
20 to be done as a result of the September 401, Exhibit 1, is
21 that correct?

22 MR. YOUNG: Mr. Eglick mischaracterizes his
23 testimony. It isn't anticipated, it's required.

24 MS. COTTINGHAM: Sustained.

25 Q (By Mr. Eglick) That study is something that the September

AR 055845

1 401 calls out as a requirement, is that correct?

2 A Yes, it's a requirement of the 401 certification.

3 Q Okay. When did the concept of a WER study first appear in
4 the water quality control literature?

5 A I'm not sure I understand your question, when you say
6 water quality control literature.

7 Q Let me ask it this way. Was the concept of a WER study
8 known in the Department of Ecology ten years ago?

9 MR. YOUNG: Object. Lack of foundation.

10 MS. COTTINGHAM: Do you have a response to
11 that?

12 MR. EGLICK: Well, I think he has already
13 testified extensively about a WER study, in fact his
14 prefiled testimony refers to some guidelines.

15 MS. COTTINGHAM: Mr. Young is concerned with
16 the time period.

17 MR. EGLICK: Well, okay. I'll rephrase the
18 question.

19 Q When did you first become aware, Mr. Fitzpatrick, that a
20 WER study could be conducted for the purposes that you've
21 described it will be conducted here?

22 A I believe our -- and I may not have the exact timeframe
23 down here, but we established in our own permit writer's
24 manual the water effects ratio guidance, I think, in '99,
25 1999.

AR 055846

1 Q Okay. And is there something in the WER study that
2 addresses the issue that you've identified in your
3 prefiled testimony of whether one can use grab samples to
4 apply nonconstruction stormwater effluent limits?

5 A Is there something -- could you repeat the question?

6 Q Is there something inherent in a WER study that addresses
7 the question that you've raised in your prefiled testimony
8 of whether one can use a grab sample to monitor for and
9 apply nonconstruction stormwater effluent limits?

10 A If it is a WER study that is being done on the impacts of
11 storm water, part of the requirements for that WER study
12 is to come up with a sampling monitoring plan that has in
13 it methods, sampling methods, methodologies, that are
14 obtaining for you a truly representative sampling in order
15 to properly characterize a stormwater discharge.

16 Q And is that something that is part of the protocol for a
17 WER study?

18 A Right. A WER study, I believe a predicate for a WER study
19 is to come up with a quality assurance sampling plan as
20 part of that, and a goal of such a sampling plan is where
21 you would be establishing methodologies that are based on
22 current literature which allows you to best characterize
23 and capture what's happening in any given number of
24 stormwater events.

25 Q So the Department's reliance on a WER study in the 401

AR 055847

1 assumes, doesn't it, that there are methods that can be
2 used to set numeric limits on nonconstruction stormwater
3 effluents and then monitor for them. Isn't that correct?

4 A No, I'm not certain that we can make all of those leaps
5 that you just made in your assumption. The purpose of a
6 water effects ratio study is to tell you if you have local
7 conditions, local effects in your receiving water that
8 allow for or actually result in a different type of
9 partitioning of metals in that receiving water.

10 Q So would it be correct then to say that one could go
11 through a WER study, as your counsel has suggested is
12 required in the 401, and then at the end of the WER study
13 still not have resolved the question that you've raised in
14 your prefiled testimony that it's not possible, you have
15 said, to monitor for nonconstruction stormwater effluent
16 exceedances?

17 MR. YOUNG: I object to the form of that
18 question.

19 MS. COTTINGHAM: Restate your question.

20 Q (By Mr. Eglick) Well, Mr. Fitzpatrick, you've suggested in
21 your prefiled testimony, haven't you, that there is a
22 problem in monitoring for nonconstruction stormwater
23 exceedances because, for example, of what you describe as
24 a first flush phenomenon. Do you recall that?

25 A Yes, I do.

AR 055848

1 Q Is there something that a WER study is going to accomplish
2 that will make that problem go away?

3 A If the WER, and, again, this is a predicate on an
4 acceptable water effects ratio study, what would make that
5 problem go away, the problem of not doing truly
6 representative sampling, is a final sampling plan with the
7 appropriate quality assurance, quality control procedures
8 in that sampling plan which would give you confidence that
9 you are doing truly representative sampling of any given
10 number of storm events.

11 Q It sounds as if what you are saying, if I may try to
12 restate it for you, is that the sampling problem that
13 you've posited in your testimony, were we to accept that
14 as a real problem, is one that can be solved, is that
15 correct?

16 A Yes. You can start to solve that sampling problem with a
17 well designed water effects ratio study.

18 Q Well, let me ask, you can solve that sampling problem
19 without a WER study, can't you?

20 A Are you saying the problem of doing representative
21 sampling?

22 Q Yes.

23 A Yes, you can solve the problem of representative sampling
24 by going into -- if you want to do the best science right
25 now to do representative stormwater sampling, you could

AR 055849

1 write a condition that, you know, requires the development
2 of such a sampling plan. That was I think in part my
3 reasoning for requiring the water effects ratio study,
4 because it's my belief that will get that better
5 representative sampling in the water effects ratio plan,
6 plus the added benefit and knowledge of just what is the
7 exact nature in its more -- I don't think we'll ever be
8 able to capture it's entire totality, but that will be
9 able to, you know, further our knowledge of just what the
10 exact water-quality impacts are of stormwaters.

11 Q Was that a "yes" as to the question of whether you can
12 resolve the sampling question without doing a water
13 effects ratio study?

14 MR. PEACE: Objection.

15 MR. YOUNG: Objection. Argumentative.

16 MS. COTTINGHAM: Sustained.

17 Restate the question so you have an answer yes or no.

18 Q (By Mr. Eglick) It's the same question, Mr. Fitzpatrick.

19 Can you resolve what you've identified as a sampling
20 problem that you say has been in existence at SeaTac for
21 some time, can you resolve that without doing a water
22 effects ratio study? Yes or no.

23 A Yes.

24 Q And is the idea that there has been some need to resolve
25 this what you've identified as a sampling problem a new

AR 055850

1 one that just came up when the current 401 was issued?

2 Yes or no.

3 MR. PEARCE: Objection to counsel's attempt to
4 require a yes or no answer to that question. It may not
5 be possible to answer the question yes or no.

6 MS. COTTINGHAM: If it's not possible, like I
7 said earlier, simplify the question, answer it simply as
8 possible, and you can bring that out on cross-
9 examination.

10 Q Is the idea that you've suggested, that you cannot resolve
11 what you've identified as sampling issues at -- that you
12 can resolve sampling issues at SeaTac. Let me start over.

13 Is the idea that there are sampling issues that need
14 to be resolved at SeaTac one that just came up in the
15 context of the current 401?

16 A No.

17 Q Ecology has known that whatever the facts are that makes
18 Ecology think it needs to address sampling issues, Ecology
19 has known of those facts for several years, hasn't it?

20 MR. YOUNG: Object as vague.

21 MS. COTTINGHAM: Could you be a little clearer
22 with your question.

23 Q (By Mr. Eglick) Well, Mr. Fitzpatrick, when did you first
24 come to the realization that the water quality criteria in
25 your view could not be accurately -- or compliance with

AR 055851

1 the water quality criteria in your view could not be
2 accurately assessed at SeaTac, when did you first come to
3 that realization, what year?

4 A Evaluating the impacts to water quality from stormwater
5 discharges, from nonconstruction stormwater discharges
6 from industrial operations, has been an ongoing problem
7 that I've been aware of clear back to, in the case of
8 SeaTac airport, clear back to 1992, and even going before
9 that to encountering similar types of problems at other
10 industrial operations, as well, their industrial
11 stormwater discharges.

12 Q So what you say you've identified as the problem you've
13 been aware of then for at least ten years, is that
14 correct?

15 A Yes.

16 Q And the first proposal to deal with it, you're testifying,
17 is in a condition for a future study in this 401, is that
18 correct?

19 A No. I would not say this is the first attempt to deal
20 with this. This has been an ongoing challenge to
21 Department of Ecology and other environmental agencies.

22 Q So then would it be accurate to say that, in light of this
23 ongoing challenge, that Ecology has been unsuccessful up
24 and through the issuance of this 401 in resolving this
25 problem that you identified ten years ago, is that

AR 055852

1 correct?

2 A I would not say we have been unsuccessful, I would say we
3 have been successful in continuing to advance our
4 knowledge about storm water and the relationship of storm
5 water to its impacts on waters of the state.

6 Q Mr. Fitzpatrick, is there anything in a prior 401 or NPDES
7 permit prior to the September 21, 401 that you can point
8 to that addressed this issue that you've identified as a
9 problem of and resolved this issue that you've identified
10 as a problem of sampling for nonconstruction stormwater
11 effluent at SeaTac?

12 MR. PEARCE: Objection. Compound.

13 MR. EGLICK: I'll rephrase.

14 Q Is there any resolution that you can identify in any prior
15 402 or 401 certification for SeaTac that resolves this
16 issue that you've identified, your suggestion that there's
17 an inability to sample properly at SeaTac?

18 A What I am aware of are attempts to assess what the exact
19 problem is. If you go back to the first permit --

20 Q I think my question, Mr. Fitzpatrick, was it resolved?

21 MR. YOUNG: I object to his cutting off. He was
22 trying to answer.

23 MR. EGLICK: But the question is, is there any
24 way to resolve it, not a history of the various attempts
25 to assess it. Because I think the witness has already

AR 055853

1 testified at length in response to my questions that we've
2 assessed for years and years. What I'm trying to pin down
3 is that this is a known problem over a decade that this
4 witness claims makes it impossible to pin down whether
5 there have been violations of water quality standards.
6 What have they done up until now? We can talk later
7 about --

8 THE WITNESS: I'm happy to speak to that.

9 MR. YOUNG: The witness has said this is a
10 complex problem and that there are no simple solutions and
11 Mr. Eglick wants a simple solution.

12 MR. EGLICK: Actually, I don't want a simple
13 solution, what I want is a simple answer to the question
14 of whether they have ever in any of the 401, 402, whatever
15 they've done in the past, have they ever identified a
16 single thing to resolve what this witness is saying has
17 been a chronic problem for ten years in determining
18 whether there are violations of water quality standards.

19 MS. COTTINGHAM: Why don't you narrow your
20 question and make it a little less complex, and we'll see
21 if you can get to your answers.

22 MR. EGLICK: That's good advice.

23 Q Mr. Fitzpatrick, can you identify any NPDES that you're
24 aware of for the airport that resolves this issue that
25 you've said exists with regard to the inability to sample

AR 055854

1 and determine whether there are violations of water
2 quality standards at SeaTac?

3 A Yes.

4 Q What would that be, specifically?

5 A The requirement for a receiving water study in the permit
6 that we issued in 1992, receiving water study that I
7 believe is actually part of an exhibit in this proceeding.

8 Q So that resolved the issue?

9 A It brought further resolution to the issue.

10 Q Well, my question is, did that resolve the issue?

11 A No.

12 Q Okay. And is there anything else you can point to that
13 resolved the issue that you've raised that concerns
14 Ecology's - what you've said - inability to determine
15 whether there are water quality standard violations at
16 SeaTac?

17 A The ongoing monitoring of their stormwater discharges, the
18 monitoring that's currently required in their NPDES
19 permit.

20 Q But isn't that the monitoring you've suggested doesn't
21 resolve the issue of whether there are water quality
22 standard violations at SeaTac, isn't that correct, isn't
23 that what your prefiled testimony is?

24 A Yes.

25 MR. EGLICK: No other questions. Thank you.

AR 055855

1 MS. COTTINGHAM: Mr. Poulin, do you have any
2 questions?

3 MR. POULIN: Thank you.
4

5 EXAMINATION

6 BY MR. POULIN:

7 Q Mr. Fitzpatrick, I'm Rick Poulin on behalf of CASE.

8 You've stated that it's extremely difficult to apply
9 the numeric water quality criteria to stormwater
10 discharges?

11 A Yes, I have.

12 Q And you've also stated that it is difficult to determine
13 an average concentration sustained over the necessary
14 period of time because of the variability of pollutant
15 concentrations in storm water?

16 A Could you repeat that question, please.

17 Q Yes. In your prefiled direct testimony you've stated it's
18 difficult to determine an average concentration sustained
19 over the necessary period of time because of the
20 variability of pollutant concentrations in the storm
21 water. Isn't that right?

22 A Yes.

23 Q And with respect to the acute freshwater criteria, the
24 necessary period of time is one hour, isn't that right?

25 A Yes. For a number of the numeric criteria it is, one-

AR 055856

1 hour average concentration.

2 Q Now the Port's permit requires that you take
3 representative samples, doesn't it?

4 A The Port's permit requires to take the sampling that's
5 laid out in the monitoring schedules.

6 Q The Port's permit explicitly requires that samples taken
7 pursuant to the permit are representative of the volume
8 and nature of the monitored parameters, isn't is that
9 right?

10 A What the Port permit requires on its sampling is the
11 sampling type and schedule that is laid out in the
12 monitoring tables.

13 Q Let's look at Exhibit 3, page 18, condition S2G of the
14 NPDES permit. That's Exhibit 3.

15 A And again the page number?

16 Q Page 18, condition S2G?

17 A Yes.

18 Q Now doesn't this state: Samples and measurements taken to
19 meet the requirements of this permit shall be
20 representative of the volume and nature of the monitored
21 parameters, including representative sampling of any
22 unusual discharge or discharge condition.

23 Did I read that correctly?

24 A Yes.

25 Q And the Port has a system in place to take representative

AR 055857

1 samples, doesn't it?

2 A The Port has a representative sample of what --

3 Q Of what is required to sample under the permit?

4 A (Continuing) of what is required to sample under the
5 permit and under what's laid out in condition S2, which
6 are the monitoring requirements.

7 Q And you've also stated that the Port's samples show
8 instantaneous exceedances of the numeric criteria but they
9 do not show that the criteria were exceeded for the
10 necessary length of time. Do you recall making that
11 statement?

12 A Yes, I do.

13 Q The Port's samples are not instantaneous samples, are
14 they?

15 A The Port's samples -- which Port samples?

16 Q The samples of storm water that you're addressing in your
17 testimony?

18 MR. PEARCE: I object as vague. I'm not sure
19 what storm water Mr. Poulin is referring to.

20 MS. COTTINGHAM: Clarify your question.

21 MR. POULIN: Certainly.

22 Q Page six of your prefiled direct testimony --

23 A All right.

24 Q And paragraph 11.

25 A Correct.

AR 055858

1 Q With reference to the Port's annual monitoring reports and
2 the SeaTac stormwater discharges, you state: The Port's
3 samples show instantaneous exceedances of the numeric
4 criteria.

5 The Port's samples are not instantaneous samples, are
6 they?

7 A The Port's samples are for metals, they do composite
8 sampling.

9 Q That's right. And a composite sample is not an
10 instantaneous sample, is it, it's not a grab sample?

11 A Composite sampling is composite, but not going over the
12 entire period of a storm event.

13 Q It's not an instantaneous sample, is it?

14 A Composite is not instantaneous, you're correct.

15 Q And, again, the permit requires those samples to be
16 representative of the volume and nature of the monitored
17 discharge, isn't that right?

18 A Correct.

19 Q Let's take a look at the best management practices that
20 you discuss in your prefiled testimony. I believe you
21 told Mr. Eglick that you wrote your prefiled testimony, is
22 that right?

23 A Yes, I did.

24 Q Okay. Now on page three, paragraph four, you identified a
25 list of treatment BMPs?

AR 055859

1 A Yes.

2 Q And you state that the BMPs are set forth in the
3 stormwater pollution prevention plan required by the
4 permit, isn't that right?

5 A The stormwater pollution prevention plan in condition S2,
6 right, of the permit.

7 Q Now am I right, there are two kinds of SWPPPs at the
8 airport, there are individual SWPPPs or stormwater
9 pollution prevention plans for construction activities and
10 there's also a facility SWPPP for the airport as a whole,
11 is that right?

12 A Yes, I believe so.

13 Q And you're referring to the overall facility SWPPP, is
14 that right?

15 A Yes, I believe in this paragraph I am referring to the
16 overall facility SWPPP.

17 Q Let's look at that SWPPP, that's Exhibit 425, Stormwater
18 Pollution Prevention Plan for SeaTac International
19 Airport.

20 Have you found the SWPPP?

21 A Yes.

22 Q Now you stated in your prefiled direct that the SWPPP
23 includes both source control BMPs and treatment BMPs. You
24 also state: Treatment BMPs include facilities such as
25 filter strips, composted peat filters, sand filters,

AR 055860

1 activated media filters, and WET pond.

2 Do you recall that testimony?

3 A Yes, I do.

4 Q The Port does not use compost peat filters to treat its
5 stormwater discharges at SeaTac, does it?

6 A At this time?

7 Q Yes.

8 A No.

9 Q It does not use sand filters to treat its storm water,
10 does it?

11 A It does not use what's described as sand filters in our
12 stormwater manual, no.

13 Q It doesn't include activated media filters, it doesn't use
14 activated media filters to treat storm water either, does
15 it?

16 A No, it doesn't.

17 Q Which you included those in your testimony?

18 A Yes, I did. And what I was trying to convey is that these
19 are all treatment BMPs that are available to the Port.

20 Q But the Port is not required to implement those BMPs, is
21 it?

22 A It would be required to implement those BMPs, if we found
23 that necessary through the 402 permit to have them
24 implement those BMPs.

25 Q And the Port has not implemented those BMPs, has it?

AR 055861

1 A To date it has not, no.

2 Q In fact, if we look at Table 5, following page 29 of the
3 SWPPP?

4 A Table 5 following page 29?

5 Q Yes.

6 A In Exhibit 425.

7 Q Correct. There's a summary of completed BMPs?

8 A Summary, correct.

9 Q And that spans two pages. And in fact the only identified
10 treatment BMPs are on the second page, and they do not
11 pertain to outfall SDS 3, do they?

12 A No, it does not. But I wouldn't -- I don't believe it's
13 an accurate characterization to say that's the only
14 treatment BMP that's listed there. You'll also notice
15 that they have connections of some of the existing
16 stormwater system into the industrial wastewater system,
17 and I would consider that a very high level treatment BMP.

18 Q That's a source control BMP isn't it, the rerouting of
19 storm water to the IWS?

20 A I would consider it both a source control and a treatment
21 BMP.

22 Q And you identified the rerouting of storm water to the IWS
23 as a source control in your prefiled testimony, is that
24 correct?

25 A Yes, I did.

AR 055862

1 Q I would like to finish up with a brief recap on the
2 site-specific study or WER that was discussed, just to
3 make sure I understand you.

4 The site-specific study will not change the variable
5 nature of storm water, will it?

6 A No.

7 Q And it won't change the need to obtain a one-hour average
8 to verify compliance with the acute criteria?

9 A No.

10 Q It won't change the need to obtain a four-day average to
11 verify compliance with the chronic criteria?

12 A No.

13 Q It won't change the difficulty of isolating the discharge
14 from a specific outfall?

15 A No.

16 Q It won't change the location of the monitoring point?

17 A I don't understand the question. What is the meaning,
18 what monitoring point?

19 Q You identified the location of the monitoring point as a
20 factor in the difficulty spacing methodology determining
21 compliance with water quality standards?

22 A I'm not -- no, I don't recall saying that.

23 Q Let's move on.

24 In fact, the site-specific study will not change
25 anything but the standard itself, isn't is that right?

AR 055863

1 A No, it doesn't change the standard, it doesn't change the
2 existing standard. That's not what a water effects ratio
3 study does, it does not change the water quality standard.

4 Q It provides a ratio which is multiplied against the
5 current standard?

6 A Correct. It provides what the true -- it provides the
7 more accurate ratio of what is occurring in those adjacent
8 receiving waters.

9 MR. POULIN: I have no further questions.

10 MS. COTTINGHAM: Mr. Young. Redirect?

11 MR. YOUNG: Yes.

12

13

EXAMINATION

14

BY MR. YOUNG:

15 Q I want to first ask you about this document relating to
16 the reasonable potential analysis, which is Exhibit 708.

17 A Is this the attorney general's document?

18 Q No, no, it's Parametrix stuff.

19 A Correct.

20 Q Is there a methodology to the water quality permit
21 writer's table for the water quality program for reading a
22 potential analysis?

23 A Yes, there is.

24 Q If you look at this memorandum here, does this comply, as
25 far as you can tell, with those methodologies?

AR 055864

1 A I could not really -- I can't do that level of analysis on
2 the fly here, sorry.

3 Q Can you read just the first sentence, actually the first
4 couple of sentences of the second full paragraph?

5 A Yes. Lisa Zinner stated at the beginning of the meeting
6 that the analysis was intended to be informal. Some of
7 the data used was based on best available information and
8 professional judgment reached by consensus.

9 Q There were a couple of times in your testimony before
10 lunch where you were wanting to say something and you
11 weren't able to say it, so I want to go back to those.

12 At one point you were asked whether there were any
13 water-quality based effluent limitations in the NPDES.
14 Was there something you wanted to add to your answer to
15 that?

16 A Right. I believe I gave a categorical "no" to that. That
17 was incorrect.

18 Based on the most recent modification to the permit,
19 the major modification that was made to the permit back in
20 May of 2001, we added water-quality based limits for
21 turbidity for the construction site activity that will be
22 going to the receiving waters that the Port of Seattle
23 requested be added to the permit.

24 Q And then the second time was when you were asked a series
25 of questions with regard to nonconstruction storm water

AR 055865

1 and whether there were exceedances of the water quality
2 standards with regard to nonconstruction storm water. And
3 you said you didn't know whether there were any such
4 exceedances, and you wanted to add something to that.
5 What was it that you wanted to add?

6 A That in large part the driver in having that condition for
7 a water effects ratio study is intended to advance our
8 knowledge, so that we can with greater certainty determine
9 if there are indeed these water quality exceedances
10 occurring as a result of stormwater discharges, the
11 nonconstruction stormwater discharges from the Port of
12 Seattle to their surrounding receiving waters.

13 Q Okay. And can you just very briefly explain the
14 difference between -- I'm sorry, tell us what is the
15 difference between the water-quality based effluent
16 limitations and the numeric water quality standards in the
17 WACs?

18 A All right. An effluent limitation can be of two types, it
19 can be a technology-based effluent limit, which is what we
20 currently have in their Port's NPDES permit. And I say
21 that we currently have those in the Port's NPDES permit
22 because BMPs are an example of technology-based limit, and
23 in fact because of guidance from EPA right now, in terms
24 of applying effluent limits to industrial stormwater
25 discharges, the recommendation is to use best management

AR 055866

1 practices, both source control and treatment best
2 management practices, as limitations on those stormwater
3 discharges, industrial stormwater discharges.

4 The other type of limit that we have is a water-
5 quality based limit. And a water-quality based limit is
6 done in consideration of our existing water quality
7 standards, and in particular you base those numeric
8 effluent limits on the numeric standards that we have in
9 WAC 173-201A.

10 So in way of illustration, let's take the standard
11 for copper. And what we currently have in our permit
12 writer's manual is the ability to derive a numeric
13 effluent limit by using reasonable potential analysis and
14 methodologies that can tell us if a discharge from an
15 industrial process wastewater source or from a municipal
16 wastewater source has the potential to violate the listed
17 state water quality standard.

18 What becomes problematic for a stormwater discharge,
19 and I believe this is the reason why we have the guidance
20 that we have right now from EPA to apply best technology
21 base, best management practice effluent limits and to
22 avoid, at least at this stage of the game until we get,
23 you know, expanded knowledge of just what's happening in
24 the complex world of storm water, what we don't have in
25 our permit writer's manual right now is a reasonable

AR 055867

1 potential determination to see if there's a reasonable
2 potential for an industrial stormwater discharge or what's
3 been talked about here as a nonconstruction storm water
4 discharge, we don't have those methodologies in our permit
5 writer's manual, nor am I aware of anything current that's
6 out from EPA that allows us to accurately do a reasonable
7 potential determination stormwater discharge similar to
8 what we have to do a reasonable potential determination on
9 either a process, administrative process wastewater
10 discharge or a municipal wastewater discharge from a
11 sewage treatment plant.

12 So, again, to sum up, there's technology-based
13 effluent limits, water-quality based effluent limits which
14 are often expressed as a numeric limit, and with the
15 water-quality based effluent limit, what you're doing is
16 setting a limit so you will not violate our water quality
17 standards in the receiving water.

18 MR. YOUNG: Thank you. That's all of the
19 questions that I have.

20 MS. COTTINGHAM: Mr. Pearce.

21 MR. PEARCE: I have a few based on
22 cross-examination.

23 MS. COTTINGHAM: I made a mistake here. He was
24 not your direct --

25 MR. EGLICK: I don't think Mr. Pearce asked any

AR 055868

1 questions on direct, so --

2 MR. PEARCE: Well, I would have asked some if I
3 knew I couldn't do redirect, I thought I could do redirect
4 on behalf of my party.

5 MR. EGLICK: You typically do redirect on your
6 direct.

7 MS. COTTINGHAM: However, the prehearing
8 order did allow any party to call anybody who was on the
9 list.

10 MR. EGLICK: I assume we'll get an opportunity
11 to cross on the redirect then, so we're not left out in
12 the cold here, because I don't know what's going to be
13 asked or where it comes from.

14 MS. COTTINGHAM: I have given some leeway on
15 questioning by intervenors, and it's not as clean as it
16 would ordinarily be if there were two parties. So I'll
17 allow leeway here, but I'm not going to continue back and
18 forth.

19 MR. EGLICK: I understand. We just don't want
20 to get caught flat-footed here, if there's an area that we
21 haven't been able to cross on.

22 MR. PEARCE: If I open a new area, Mr. Eglick
23 should object and I shouldn't be allowed to ask that
24 question. I'm only going to ask about things he asked on
25 cross.

AR 055869

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MS. COTTINGHAM: Pay close attention.

MR. EGLICK: Thank you.

EXAMINATION

BY MR. PEARCE:

Q Good afternoon, Mr. Fitzpatrick.

Are BMPs an appropriate treatment method for industrial storm water?

A They are the method that we have to -- both source control and treatment BMPs are what we use to control the stormwater discharges from industrial facilities.

Q And I believe you testified, are they effluent limits?

A They are technology-based effluent limits, yes.

Q Let me ask you briefly then to clarify some confusion, for me, at least, about water-quality based effluent limits. These are limits on the actual discharge, is that right?

A They're limits that are set either at end of pipe, or, if you have an authorized mixing zone, there are limits in the mixing zone or at the edge of the mixing zone.

Q And how is that different from a -- well, let me withdraw that.

That's different from the ambient water quality standards in 173-201A-040, is that correct?

MR. EGLICK: Objection. Leading.

Q (By Mr. Pearce) Aren't they different from ambient water

AR 055870

1 quality standards?

2 A A water-quality based numeric effluent limit is different
3 from the numeric water quality standards. I think what
4 you're referring to is the ambient water quality
5 standards, and you set the numeric effluent limits in such
6 a way that you're insuring that you're not going to
7 violate the existing standards.

8 Q When you say the "existing" standards, do you mean the
9 existing ambient water quality standards?

10 A The existing water quality standards in Washington
11 Administrative Code 173-201A.

12 Q And are those ambient water quality standards, where are
13 they measured?

14 MR. POULIN: Objection. Calls for
15 interpretation of law.

16 Q (By Mr. Pearce) In your understanding, where are ambient
17 water quality standards measured, what water samples do
18 you take to measure that out?

19 A The standards are to be met in the receiving water.

20 Q And when you say it's ambient, what does that mean?

21 A Well, the purpose of those standards are to -- in the case
22 of our numeric standards for metals, that tells us that so
23 long as the receiving water is meeting those standards
24 that it can support all of the beneficial uses which are
25 described in our water quality standards for that water

AR 055871

1 body.

2 Q When you measure in the receiving water for the ambient
3 water quality standards, does that measure everyone's
4 contribution?

5 MR. POULIN: Objection. Vague.

6 MS. COTTINGHAM: I'll overrule that. But you
7 might want to explain what "everyone" means.

8 MR. PEARCE: Let me rephrase. That was a real
9 colloquial.

10 Q When you measure for ambient water quality standards in a
11 receiving water, that measures, does it not -- or does
12 that measure the contributions from all sources to that
13 receiving water?

14 A Yes. If you have a number of sources into a receiving
15 water, into a stream, what you would be seeing in that
16 receiving water sample are all of the upstream sources or
17 contributors to that water body.

18 Q With respect to these particular streams, do we know at
19 the present time the exact relative contributions of the
20 different sources to those streams of copper, zinc, and
21 other metals?

22 MR. POULIN: Objection. I believe this is
23 beyond the scope of both direct and cross.

24 MR. EGLICK: (Nods affirmatively).

25 MS. COTTINGHAM: Do you have a response to

AR 055872

1 that?

2 MR. PEARCE: Yes. They talked about ambient
3 water quality standards in the receiving waters and who
4 might be exceeding them. And my question to this witness
5 is whether we know what the relative contributions are to
6 those particular streams.

7 MR. POULIN: Mr. Pearce is speculating about
8 theoretical other polluters or contributors to
9 contamination of the stream, and nobody has talked about
10 that on direct or cross.

11 MR. PEARCE: I think the witness testified that
12 there are many different contributors to those particular
13 streams.

14 MS. COTTINGHAM: Lay a foundation on his
15 knowledge base.

16 MR. PEARCE: Okay.

17 Q Are you aware of the extent of the Miller Creek watershed?

18 A Yes, I have some knowledge of it.

19 Q Are you aware that there are other contributors to that
20 watershed other than the Port of Seattle?

21 A It is an urban watershed that has numerous residential,
22 commercial, industrial stormwater sources to it, other
23 than the Port of Seattle.

24 Q And do many of those stormwater sources have the same
25 types of metals in them, especially the roadways there?

AR 055873

1 A Yes, they would. Especially the contributions that would
2 be coming from highway road runoff.

3 Q And with respect to the Des Moines Creek watershed, are
4 you aware of the general scope of that watershed?

5 A Yes, I have some knowledge of it.

6 Q Are there additional sources, other than the Port of
7 Seattle, the Seattle Tacoma International Airport that
8 contribute storm water to that creek?

9 A Yes, there are.

10 Q And are some of those sources roadways?

11 A Yes.

12 Q And would they have the same types of metal contaminants,
13 in particular copper and zinc, that would be -- I'm sorry,
14 let me withdraw that.

15 Would they also contribute copper and zinc to their
16 stormwater runoff?

17 MR. POULIN: Objection. Mr. Pearce is leading
18 the witness again.

19 MS. COTTINGHAM: Sustained.

20 Q (By Mr. Pearce) Does runoff for roadways contain copper
21 and zinc?

22 MR. POULIN: Objection. Leading.

23 MS. COTTINGHAM: I'll allow some leeway here and
24 overrule.

25 A Yes, roadways, highway runoff is -- there's much data

AR 055874

1 documentation that highways are a chronic source of copper
2 and zinc.

3 Q Do we know in respect to Miller Creek and Walker Creek and
4 with respect to Des Moines Creek what the relative
5 contribution of metals in those streams are from the Port
6 of Seattle and from other potential sources?

7 A What we do have before us, that is, with Ecology and
8 everybody really has before them because this is a public
9 document, we have the receiving water study that was done
10 in 1997 by the Port of Seattle and which, you know, I
11 believe shows that there are considerable upstream
12 contributions, upstream from the Port of Seattle from
13 where the Port of Seattle's discharge comes into the
14 Miller Creek system, which are contributing these metals,
15 copper and zinc in particular, and also there's evidence
16 in that receiving water study that shows that the Port
17 contributes these as well. Now, as to any exact
18 certainty, I would not say that we have any really
19 definitive knowledge on what those relative contributions
20 are.

21 Q Is that one thing you would expect to find in the WER
22 study?

23 A I expect from the WER study that we are going to get far
24 better definition from an acceptable WER study that gives
25 us far more exact data than what we have right now on what

AR 055875

1 that contribution from the Port's storm water is to the
2 Miller Creek system, to the Des Moines Creek system, and
3 to Walker Creek.

4 Q Let me ask you a short hypothetical. If the WER study
5 shows that the Port's relative contributions are an issue
6 for DOE, what can DOE do in the NPDES process?

7 MR. EGLICK: Objection to the form of the
8 question. An issue for DOE is vague.

9 MS. COTTINGHAM: Clarify the question.

10 Q (By Mr. Pearce) What I mean issue for DOE -- let me
11 rephrase.

12 If the WER study shows that the relative
13 contributions from the Port are - I hate to characterize
14 it - are of such a magnitude that they need controlling,
15 what steps can DOE take?

16 MR. EGLICK: I object to the form of the
17 question. Again, of such a magnitude that they need
18 controlling is also vague as to what exactly is being
19 asked. Are we talking about exceeding criteria?

20 MS. COTTINGHAM: Would you restate the question
21 more clearly.

22 Q I'll say it this way. If WER shows you what the Port's
23 relative contribution is, what further steps could DOE
24 take?

25 A These are steps that we can currently take in our NPDES

AR 055876

1 permit, and I'm expecting that these are steps that -- in
2 fact I have certainty that these are steps that we will be
3 taking in the reissued NPDES permit, and that is when
4 Ecology has more certain knowledge of a definition or
5 about what these contributions are, we can require the
6 Port to put in all the necessary source control and
7 treatment BMPs. Further, if we find that those current
8 available source control and treatment BMPs are still not
9 getting us to reducing these water quality impacts from
10 the Port's stormwater contribution, we can go further to
11 have the Port evaluate and look at innovative, that is,
12 new treatment technologies that, you know, would
13 effectively control and reduce their impacts, their
14 particular impacts to the water quality of the surrounding
15 receiving water.

16 Q Could I have you look back at the page three of your
17 testimony, the portion that Mr. Poulin asked about?

18 A All right.

19 Q Included in the last sentence there is a list of treatment
20 BMPs. Is that correct?

21 A Yes, I agree.

22 Q Are some of those treatment BMPs effective -- could you
23 tell me which of those treatment BMPs are effective in
24 removing toxics from the storm water?

25 A Which of them can be effective in removing, that have

AR 055877

1 removing capabilities, I would say -- and these are
2 varying levels, I want that understood that these are
3 varying levels of removal efficiencies here, some with
4 better removal efficiencies than others, but actually I
5 would say all of those treatment BMPs listed there.

6 MR. PEARCE: Thank you, Mr. Fitzpatrick. I have
7 no more questions.

8 MS. COTTINGHAM: Any questions from the
9 Board? Actually, why don't I start with that, I do have
10 some questions.

11 You talked about the target flow regimes, the target
12 of 75-percent forested, 15-percent pasture, and 10-percent
13 impervious?

14 THE WITNESS: Yes.

15 MS. COTTINGHAM: By setting that kind of a
16 regime, what does that mean?

17 THE WITNESS: The intent of setting that flow
18 regime is that we are setting a design standard for the
19 stormwater control facilities at SeaTac airport which
20 simulate those predeveloped conditions in the watersheds.
21 So effectively what we were doing is taking an entire
22 municipal airport and telling the watershed what you're
23 going to be getting in terms of a stormwater flow from its
24 airport simulates what you would see if that indeed was
25 75-percent forested and so on.

AR 055878

1 MS. COTTINGHAM: Thank you. You've answered
2 my question.

3 And I think you answered this, too. You had talked
4 about a sampling for phase I and phase II, and then the
5 sampling set forth in the 401 certification. And you had
6 originally said sampling occurs after the phase I and
7 phase II site evaluation, as a safety net.

8 Did I understand you to say that sampling does not
9 actually occur in phase I and phase II?

10 THE WITNESS: Sampling occurs as part of
11 phase II.

12 MS. COTTINGHAM: As part of phase II.

13 THE WITNESS: Yes.

14 MS. COTTINGHAM: And it's the same sampling, the
15 number of samples set forth in the 401?

16 THE WITNESS: No. That is different.

17 MS. COTTINGHAM: Different. Okay.

18 My next question is, you were testifying about the
19 inclusion of the petroleum, the two categories in the
20 chart, and although they're in the chart they would have
21 no operative effect because they would have been screened
22 out in earlier phase I and phase II analysis?

23 THE WITNESS: Yes.

24 MS. COTTINGHAM: Did you have any discussion
25 at Ecology about taking those out of the chart or --

AR 055879

1 THE WITNESS: Yes, we have had those
2 discussions.

3 MS. COTTINGHAM: Have you decided not to?

4 THE WITNESS: No. We have had those
5 discussions since the 401 was issued, and I don't think
6 I'm speaking too much out of school here by saying that we
7 made a mistake in putting them in there.

8 MS. COTTINGHAM: I'm going to clarify another
9 thing. You were asked whether the WER study would result
10 in lessening of any standards, and you indicated no, it
11 provides an accurate local translator on how the metal is
12 actually behaving in the receiving water and that it
13 wouldn't reduce the standards.

14 Might the standards get tougher or just the response
15 to the existing standards following the WER study?

16 THE WITNESS: I'm not sure I understand the
17 question. When you say might the standards get tougher,
18 the way that the standards are applied now in the absence
19 of -- could I give an illustrative example for copper?

20 The way that you determine whether the standards are
21 or are not being met in the absence of a local water
22 effects ratio study is you fall back on a translator that
23 is provided for in the standards. So you apply that
24 translator to your total recoverable copper result, and
25 you also take in the hardness value of the receiving

AR 055880

1 water, and that tells you whether the standard is being
2 exceeded or being met. One of the results of a water
3 effects ratio study is that you have an accurate or a more
4 accurate, I should say, translator for that receiving
5 water.

6 MR. YOUNG: Your Honor, can I raise a point?
7 I'm sorry to interrupt. But Mr. O'Brien is to be our next
8 witness and he has to get his kids, so I'm wondering if he
9 could be excused. We have other witnesses,
10 Mr. Garland and Mr. Yee are both here, so I was wondering
11 if Mr. O'Brien could be excused now and then move those
12 witnesses up and do them next. Would that be acceptable?

13 MS. COTTINGHAM: Any problem with that?

14 BY COUNSEL: We have no objection.

15 MR. YOUNG: Thank you.

16 MS. COTTINGHAM: I only have one last question.
17 When you were talking about the relative contributions to
18 the receiving water, that the WER study would give a far
19 better definition of data about contributions from the
20 Port, but it's not going to provide you more detailed
21 information about the relative contributions of others?

22 THE WITNESS: It will tell us by getting a
23 better assessment of what the Port's contributing. We
24 then derive a better assessment of what all of those other
25 diffuse sources are contributing.

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MS. COTTINGHAM: But all of the other can be lumped into one. And you're not going to say Highway 99 does this, City of SeaTac does that, it's going to be the Port and everybody else, correct?

THE WITNESS: Yes.

MS. COTTINGHAM: No further questions.

Mr. Lynch.

MR. LYNCH: Good afternoon. Thanks for your testimony today.

In your written testimony you indicate that you helped develop and implement TMDL's from inherent water bodies as to maximum daily loads. I was interested in knowing if any of these three creeks that we're talking about here, are any of those creeks listed on the 303-D list of impaired water quality?

THE WITNESS: The Des Moines Creek is listed on our current 303-D list for fecal coliform.

MR. LYNCH: That's my only question.

MS. COTTINGHAM: Any questions as a result of the Board questions?

MR. EGLICK: Yes, Your Honor.

AR 055882

1 EXAMINATION

2 BY MR. EGLICK:

3 Q Mr. Fitzpatrick, I guess I have to ask you to go back, if
4 you would, to Exhibit 1, the September 401, page 17. And
5 this is back where we were at the beginning. Do you see
6 where it says (b) under fill criteria?

7 A Yes.

8 Q Do you see where it says the results of the phase II
9 environmental site assessment sampling and testing shall
10 be compared to the fill criteria, do you see that?

11 A Correct.

12 Q And the fill criteria are then what follow below, are they
13 not?

14 A Correct.

15 Q And then if you turn back to page 16, the box at the
16 bottom of page 16 describes how many samples you take to
17 do this phase II sampling, is that right?

18 A No, that's not correct. That is following fill source
19 characterization. This is an additional sampling that you
20 would do.

21 Q Well, fill source characterization is the phase I, isn't
22 it, where you check the documents?

23 A It's both phase I and phase II.

24 Q So you are suggesting there is sampling that occurs in
25 addition to the sampling described in the box at the

AR 055883

1 bottom of page 16, there's other sampling that occurs?

2 A Right. My understanding of the ASTM protocol for
3 phase II sampling is that -- and again I'm not the expert
4 on phase II.

5 Q Well, then, let me ask you who is, because I think that
6 would be a better way to get at this.

7 A The expert would be Chung Yee.

8 Q So then I take it whatever explanation you've given us as
9 to what is required in terms of sampling on phase II, you
10 would defer to Chung Yee on that?

11 A Yes, I would.

12 Q Then perhaps that is where everyone should address their
13 questions as to whether the box on the bottom of page 16
14 is what is going to be required under sampling on
15 phase II?

16 A Correct. My understanding of the box on --

17 Q Well, I'll ask Mr. Chung Yee, if he is the expert.

18 A Yes.

19 Q Thank you. I guess I wanted to ask one question.

20 Is it your understanding that if water quality
21 standards are not being met in a water body, let's say for
22 copper, that a discharge is permitted that would add to
23 the contaminant for which the water quality standard is
24 not being met?

25 A That's a very complicated question.

AR 055884

1 Q Let me make it simple. Let's say that one of the creeks,
2 one or more of the creeks in the airport area is not
3 meeting water quality standards for copper. Can the Port
4 discharge or have a discharge that adds to the copper load
5 in the creek?

6 A If a water body is listed on our 303-D list as being
7 impaired for copper or zinc, any new discharge into that
8 water body that would load copper or zinc while that water
9 body was still impaired would not be allowed.

10 Q In fact, isn't it true that Ecology has taken the position
11 that it doesn't matter whether the water body is listed on
12 the 303-D list, for example, for copper, if it is known
13 that the water body already is exceeding the water quality
14 standard for copper, then an additional load of copper
15 cannot be introduced, isn't that correct?

16 MR. YOUNG: I object. It seems to be beyond the
17 scope of the Board's questions.

18 MS. COTTINGHAM: The Board's question only
19 related to whether any of the creeks were on the 303-D
20 list, and neither of the other parties asked questions
21 about the 303 list.

22 MR. EGLICK: Well, I think what I'm trying --
23 since the question of 303-D was raised, I'm trying to
24 elicit testimony as to whether or not 303-D is in fact the
25 defining parameter here in terms of whether or not

AR 055885

1 additional contributions of copper are permitted.

2 MS. COTTINGHAM: I will allow the question.

3 MR. EGLICK: Thank you.

4 Q Do you know what a TMDL is?

5 A Yes.

6 Q That's something that you calculate for a water body
7 that's on the 303 list, is that correct?

8 A Total maximum daily load, yes.

9 Q Could you look again, if you would, at Exhibit 803 at page
10 six, that's that letter from the attorney general.

11 A Page six.

12 Q Yes. Do you see where Mr. McDonald of Ecology has stated
13 "whether a TMDL has been completed is irrelevant," do you
14 see that?

15 A Yes.

16 Q Okay. And are you disagreeing with Mr. McDonald's
17 statement to the Port on that issue?

18 MR. PEARCE: Objection to the extent it calls
19 for a legal conclusion.

20 MR. EGLICK: Well, I don't know whether it calls
21 for a legal conclusion or not; I'm asking if he disagrees
22 with it.

23 MS. COTTINGHAM: I'll allow the question.

24 A And you're referring to the statement that begins:
25 Whether a TMDL has been completed is irrelevant,

AR 055886

1 currently, based on information provided by the Port,
2 Des Moines and Miller Creeks are not meeting water quality
3 standards for copper, zinc, temperature, as well as fecal
4 coliform.

5 Q That's right.

6 A I would have to study this entire document to realize what
7 context he is putting the statement "whether a TMDL has
8 been completed is irrelevant".

9 MR. EGLICK: Okay. No other questions.

10 MR. POULIN: I have a few questions, Your Honor.

11 MS. COTTINGHAM: Again related to the Board's
12 questions?

13 MR. POULIN: Precisely, yes.

14

15 EXAMINATION

16 BY MR. POULIN:

17 Q Related again to the TMDL, has Ecology's Northwest
18 Regional Office ever recommended the Miller or Des Moines
19 Creeks on the 303-D list for any parameter other than
20 fecal coliform?

21 A Well, we didn't do it for fecal coliform, either.
22 Des Moines Creek got listed based on data that was
23 submitted by other parties, and that's how it ended up on
24 the list.

25 Q The question is: Has Ecology's Northwest Regional office

AR 055887

1 ever recommended the listing of Miller or Des Moines Creek
2 on a 303-D list for any parameter other than fecal
3 coliform?

4 A Yes, I believe that was a recommendation that was made by
5 Lisa Austin, then Zinner.

6 Q And what parameters were at issue in her recommendation?

7 A I recall copper.

8 Q Okay. Now the Board also asked about the relative
9 contributions of Port versus non-Port or off-site storm
10 water. And in your redirect, you and Mr. Pearce discussed
11 the contributions in the Des Moines Creek basin. What is
12 the approximate percentage of off-site or non-Port storm
13 water that discharges through SDS 3?

14 MR. PEARCE: Objection, Your Honor. He is only
15 entitled to ask on the Board questions, not my redirect.

16 MR. POULIN: The Board question involved the
17 relative distribution of on-site and off-site discharges.

18 MS. COTTINGHAM: I will allow the question.

19 Q (By Mr. Poulin) I would like to repeat the question.

20 What is the approximate percentage of off-site or
21 non-Port storm water that discharges through SDS 3?

22 A Everything that goes through SDS 3, in my understanding of
23 the way that that subbasin operates, is that that would be
24 all stormwater runoff from the Port of Seattle.

25 Q And is that because SDS 3 is in the west branch rather

AR 055888

1 than the east branch of Des Moines Creek?

2 A No. It's because of where the upstream storm water is
3 coming. I mean it's because of the part of the Port
4 facility that it's draining.

5 Q I see. So that there's no non-Port contributors upstream
6 of SDS 3?

7 A No, to my understanding there are none.

8 MR. POULIN: Thank you.

9 MS. COTTINGHAM: Any questions as a result of
10 Board questions?

11 MR. PEARCE: Just one, Your Honor.

12

13 EXAMINATION

14 BY MR. PEARCE:

15 Q The Board asked you about TDMLs in this exhibit --

16 A TMDL.

17 Q Thank you for the correction.

18 Do you know if the best management practices at the
19 airport have changed since this letter was written by
20 Mr. McDonald in September of 1998?

21 A If there are continuing improvements to best management
22 practices?

23 Q Yes.

24 A Yes.

25 MR. PEARCE: Thank you. Nothing further.

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MS. COTTINGHAM: With that, I'm going to recommend that we take about a ten-minute break and come back at twenty after.

MR. KRAY: Ms. Cottingham, before we take the break -- we have other Ecology witnesses. We're moving a little slower than anticipated, and I recognize yesterday the Board indicated we may break early today, and in order to instruct those witnesses, I would like to know the Board's time frame today.

MS. COTTINGHAM: What's the wish?

(Laughter).

MR. KRAY: That we continue to five.

MS. COTTINGHAM: We'll continue to five.

MS. OSBORN: Ms. Cottingham, Mr. Young and I have conferred about Mr. Garland's direct testimony and we do have some resolution and some disagreement as well. Could we meet with you or your designee?

MS. COTTINGHAM: Is Mr. Garland your next witness?

MR. KRAY: Yes, he is.

MS. COTTINGHAM: Let's take a fifteen minutes break and after ten minutes into that break, why don't the two of you come meet with me up here. I'll be back.

(Recess)

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(The following proceedings were heard in the absence of Board Members Jensen and Lynch)

MS. COTTINGHAM: We'll go on the record.

It's been suggested by some of the Board members that we clarify, much like we did with the motion that had some redacted testimony, that we least have the record clear that the documents, should this go up on appeal, are in a redacted form, but then we have some way of showing what they originally said. So hopefully you've come to some conclusion that either you can agree or I can see what your disagreement is, make a determination and then we can have it redacted.

MS. OSBORN: I think we've come to agreement up until the point of Dr. Lucia's testimony. Do you agree with my redactions prior to that?

MS. COTTINGHAM: I do not have anything in front of me. That's okay, I just --

MR. YOUNG: Let me just mark where our area of disagreement is and then we can give you --

MR. REAVIS: Can we get in the meantime the areas of agreement, so I can mark my copy to what's being redacted?

MS. OSBORN: The areas of agreement are paragraph 11, except for the last sentence.

And then the last two sentences in paragraph 12 that

1 start "the improvement contained in the current report".

2 We are in agreement that paragraph 16 should be
3 redacted.

4 We are in agreement that paragraph 17, the first two
5 sentences up to "drainage out of the embankment," that
6 should be redacted. But we're not in agreement about the
7 rest of that paragraph.

8 MS. COTTINGHAM: Say that again. The first two
9 sentences?

10 MS. OSBORN: Yes. Up to the end of the sentence
11 "drainage out of the embankment".

12 MS. COTTINGHAM: I don't have anything in front
13 of me. I'm just writing notes.

14 MS. OSBORN: Then the last two sentences we're
15 not in agreement on paragraph 17, so starting with the
16 sentence "it is not anticipated" to the end of the
17 paragraph.

18 MR. REAVIS: That's the sentence that starts on
19 line 21.

20 MS. COTTINGHAM: I'm just writing down what
21 there's agreement on, not what there is not agreement on.

22 MS. OSBORN: And we're in agreement on
23 paragraph 18, for the first two sentences, "potential
24 range of behavior". Although I have to say that if the
25 other stuff comes in, I'm not in agreement on that. We

AR 055892

1 are not in agreement on the rest of the sentence.

2 Paragraph 19, we are not in agreement on the first
3 sentence. We are not in agreement on the second sentence.
4 We are in agreement on the third sentence.

5 And then on the conclusion we're in agreement on all
6 but the first sentence, and that may be fixable with a
7 small change.

8 MS. COTTINGHAM: All of it would come out but
9 the first sentence?

10 MS. OSBORN: Mr. Young want to leave the first
11 sentence in; I would be willing to leave it in with a
12 change.

13 MS. COTTINGHAM: Show me what you propose.

14 (Documents handed to Ms. Cottingham).

15 MS. OSBORN: There are two fundamental
16 disagreements here. One has to do with whether
17 Mr. Garland's comments on Dr. Lucia's testimony should
18 come out. Our position is that Dr. Lucia's -- this
19 response is to a letter that was written by Dr. Lucia on
20 February 7, 2002, it's in the record as Exhibit 329.

21 MS. COTTINGHAM: Where are you? I'm in
22 paragraph 11, that's the first thing.

23 MS. OSBORN: We are in agreement.

24 MS. COTTINGHAM: I thought you said except for
25 the last two sentences?

AR 055893

1 MS. OSBORN: We are in agreement that the first
2 -- everything should come out up until the last sentence
3 and we're in agreement that the last sentence should stay
4 in.

5 MS. COTTINGHAM: Okay. So there's no
6 disagreement there.

7 MS. OSBORN: That's correct. Our disagreements
8 don't begin until we get to Dr. Lucia's testimony.

9 MS. COTTINGHAM: Which is on what paragraph?

10 MS. OSBORN: That's page seven, it's actually
11 part four of the testimony.

12 MS. COTTINGHAM: Mm-hmm.

13 MS. OSBORN: And it starts with paragraph 16,
14 17, 18, 19. We would like all of it to come out and we
15 would like it all to come out because it's responsive to a
16 letter Dr. Lucia wrote on February 7th which in turn was
17 commenting on appendix D of the December 2001 low-flow
18 analysis, so we think that it is appropriate for this to
19 come out.

20 I may say that as I was delivering the agreement to
21 you here that if you leave in the parts that Mr. Young
22 wants in, then I would say the whole thing needs to be
23 left in so it's apparent that it's responsive to
24 Dr. Lucia. But we think this is work that was clearly
25 done after the date of deposition, so according to the

AR 055894

1 Board's order, it would be appropriate to come out.

2 We have one other disagreement that we can cross out
3 or however you wish.

4 MS. COTTINGHAM: Let me look at it while I have
5 you sitting here prepared to answer questions, if I have
6 them.

7 (Pause in proceedings).

8 MS. COTTINGHAM: Let me ask you a question
9 about paragraph 18, and it's in the sentence that Ecology
10 would like to have kept in that starts with "In my
11 opinion" TGG has done this. Did they do that in their
12 subsequent, I guess it's to whomever, did they do this in
13 their follow-up reports that were done after the discovery
14 deadline?

15 MR. YOUNG: No. That's my point. It's my
16 understanding that the sand plus silt matrix and the
17 conductivity which are stated here come from the 2000, the
18 year 2000 report that was done.

19 Now I want to be clear that I think that there has
20 been some -- basically the situation is we had a model, as
21 I understand it, there was a model that was developed in
22 the year 2000 and then there were some refinements that
23 were made to it in the year, in the December of 2001 plan.
24 There were refinements not really to the model but to the
25 inputs into the model, as I understand it. So this

AR 055895

1 information here, as I understand it, is consistent with
2 what's in the original modeling. Is that correct?

3 UNIDENTIFIED PERSON: Yes.

4 MR. YOUNG: That's my understanding, that this
5 comes from the original modeling --

6 And was unchanged then?

7 UNIDENTIFIED PERSON: No, not completely
8 unchanged.

9 MR. YOUNG: Okay. It was not completely
10 unchanged then, the new model, but I can't tell you
11 anything more than that.

12 MS. COTTINGHAM: I am going to allow the
13 sentences that Ecology would like to remain in, in
14 paragraph 17, paragraph 18, paragraph 19, and the first
15 sentence in paragraph 20, to remain in. Everything else
16 that you have agreed should come out will come out.

17 MS. OSBORN: I would request that if you're
18 leaving in Ecology's paragraphs, you leave in the
19 paragraphs that indicate they're responsive to Dr. Lucia.

20 MS. COTTINGHAM: So that would be all 16, 17, 18
21 and 19?

22 MS. OSBORN: Yes, it would be. I would just
23 point out that Dr. Lucia's analysis wasn't even done until
24 February 17th. We would have discovered
25 Mr. Garland's opinion on that had he been produced for

AR 055896

1 deposition purposes. I couldn't ask Mr. Garland what he
2 thought about Dr. Lucia's letter prior to February 7,
3 so --

4 MS. COTTINGHAM: So as a result of my ruling the
5 things that come out come out in paragraph 11 and 12,
6 everything else stays in except for the last part of the
7 conclusion.

8 MR. YOUNG: That's what I have, yes.

9 MS. OSBORN: And so on paragraph 20, it will be
10 clear to the Board that his opinion is talking about
11 based on his pre-January 9th review? That was our concern
12 about paragraph 20. I'm sorry, I hadn't conveyed that to
13 you.

14 MS. COTTINGHAM: Excuse me?

15 MS. OSBORN: We do not find the first sentence
16 in paragraph 20 objectionable in its entirety, it's the
17 assumption that -- it's the failure to acknowledge that
18 these conclusions are based not on the December 2001
19 low-flow plan which we were unable to depose and discover.
20 So our proposed change would be that it stay in summary.

21 MS. COTTINGHAM: I guess I'll change my mind and
22 take out the entire conclusion, because I believe he
23 probably wrote that taking into account the entirety of
24 the prefiled testimony, some of which now has been
25 redacted.

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MR. YOUNG: All right.

MS. COTTINGHAM: So can I get a copy of this redact, a clean copy that shows only the agreed-to redactions in paragraphs 11, 12, and the complete redaction of the conclusion. And what I'll do is enter a clarification of my earlier ruling about the redacted version.

And then I'm going to ask that some of the folks that are helping us keep the exhibits in complete order get the pages that we've redacted switched over.

And then what I would like to do is have a stipulated agreement from the parties on the pages in their entirety so that should there be any argument about the language we've redacted, at least we'll have a clean copy to seal or whatever.

MR. YOUNG: What I can do, Your Honor - we have this on our computer - we can make the redactions so that it looks clean, and Ms. Osborn can review those. We'll submit the clean copy to you, and you will keep in your file the original version.

Then I guess I can take what we took out and put it in another document and submit that.

MS. COTTINGHAM: I'm just trying to -- the record in this case is huge. I just want to make sure that we have clean -- that we have a chain of custody, a trail,

AR 055898

1 if you will.

2 MR. YOUNG: We can work it out.

3 MS. COTTINGHAM: So between the two of you, for
4 the questioning of Mr. Garland, it's clear what's in his
5 prefiled. And when we get to questions of the witness, if
6 anybody strays because they don't yet have the clean
7 copies, somebody can just make an objection and we'll
8 remind them of that.

9 MR. YOUNG: I don't intend to ask him anything
10 that would go near that, so --

11 MS. COTTINGHAM: So sometime early next week
12 you'll get me something that I can then -- Monday
13 sometime. Great.

14 We'll go off the record for a minute and I'll get the
15 other board members.

16 (Discussion off the record).

17 (The following proceedings were heard before the
18 full Board).

19 MS. COTTINGHAM: We'll go back on the record.

20 Mr. Young.

21 MR. YOUNG: Our next witness will be
22 Mr. Garland.

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AR 055899

1 DAVE GARLAND, having been first sworn or affirmed to tell
2 the truth, the whole truth and nothing but the truth,
3 testified as follows:

4

5

EXAMINATION

6

BY MR. YOUNG:

7

Q Could you state your name and spell your last name,
8 please?

8

9

A Yes. Good afternoon. My name is Dave Garland.

10

G-a-r-l-a-n-d. And I work for the state Department of
11 Ecology.

11

12

Q In what capacity?

13

A I am now watershed unit supervisor. Our unit works on the
14 water quality TMDL's. But I am also in the classification
15 with the state of hydrologist, hydrogeologist. I've been
16 a hydrogeologist for over 20 years, and I've worked for
17 Ecology in that capacity since 1979.

18

Q And did you say how long you had been a hydrogeologist?

19

A Well, 24 years overall, but since 1979 with Ecology.

20

Q Thank you.

21

And in your prefiled -- you submitted prefiled
22 testimony in this matter, is that correct?

22

23

A I did.

24

Q And in your prefiled testimony, do you discuss a

25

hydrologic study that was done by Pacific Groundwater

AR 055900

1 Group in the year 2000; do you recall that?

2 A Yes, I have it right here.

3 Q Can you tell us little bit about that study and what your
4 role in that was?

5 A Yes. I was involved in this from the very beginning. The
6 legislature in 1999, because of public concern about both
7 the third runway project and a proposed gravel mine on
8 Maury Island, allocated half a million dollars to study
9 these two significant projects in our state. And \$250,000
10 were allocated to the SeaTac runway study, and we
11 appointed committees that involved local government, state
12 Department of Ecology, King County, the Port, as well as I
13 would characterize runway opponent groups, but they didn't
14 want to be characterized that way but we'll just say
15 citizen groups in the vicinity of the airport.

16 These committees went forward and selected from among
17 several competing consulting firms, actually consortiums
18 of consulting firms, selected PGG for both studies because
19 they had the most compelling proposal, and that's how PGG
20 went ahead and conducted this study. The report was
21 produced in June of 2000.

22 Q And what was your role in that process?

23 A I was Ecology's lead to manage the study. Charles
24 Ellingson, who I believe is slated to testify here, was
25 the lead project manager for Pacific Groundwater Group or

AR 055901

1 PGG.

2 Q And I would like to refer you to Exhibit 1178.

3 MS. OSBORN: What is 1178?

4 MR. YOUNG: 1178 should be the study report.

5 Q Do you have 1178 in front of you there?

6 A I do.

7 Q Is this a copy of the report that you made reference to?

8 A Yes, it is.

9 MR. YOUNG: I would like to move to have this
10 admitted. I believe there was objection earlier and
11 that's why I specifically move for its admission. It was
12 only admitted for limited purposes and I want it to be
13 admitted for everything. It is also a deposition exhibit
14 I would note, Deposition Exhibit Number 410 -- I believe
15 that's the correct number. Yes, it's also Exhibit
16 Number 410.

17 MS. COTTINGHAM: And you're offering it for more
18 than his background?

19 MR. YOUNG: Yes.

20 MS. COTTINGHAM: Any objection?

21 MS. OSBORN: No objection.

22 MS. COTTINGHAM: So admitted.

23 (Exhibit No. 1178/410 admitted into evidence).

24 MR. YOUNG: Thank you.

25 Q Now, Mr. Garland, can you tell us please in brief form

AR 055902

1 what the purpose of this study was?

2 A Very briefly, the study, the SeaTac runway fill hydrologic
3 study was to determine just as its title connotes, the
4 hydrology of placing the fill for the third runway, the
5 hydrologic impacts to both groundwater and surface water.

6 Q In general, can you summarize the results of the study on
7 that issue?

8 A In general --

9 MS. OSBORN: I would object. This seems to go
10 beyond the scope of the testimony.

11 MS. COTTINGHAM: Response?

12 MR. YOUNG: His testimony deals with the PGG
13 bank and fill hydrologic study in roman numeral two.

14 MS. COTTINGHAM: I'm going to overrule the
15 objection.

16 MR. YOUNG: I'm having him summarize.

17 Go ahead.

18 A The study concluded that there would be an estimated
19 reduction in recharge to groundwater of eleven percent of
20 total precipitation, but there would be a delayed and
21 dampened effect on discharge from the embankment fill to
22 streams.

23 Q And now at the time that this was done, was PGG working
24 for the Port of Seattle?

25 A No. I would say for the State of Washington or Ecology

AR 055903

1 was the contractor in this case, this was a special public
2 study with public oversight commissioned by the
3 legislature.

4 Q Subsequently, then, the PGG did begin as a consultant for
5 the Port of Seattle, is that your understanding?

6 A Yes. Following the publication of this study, going into
7 early 2001, it became apparent that the Port was
8 interested in utilizing the model that PGG had developed
9 for this study.

10 Q And subsequently to the doing of this study, you had some
11 further -- there was some further analysis and you did
12 some further review. Can you summarize that for us
13 without mentioning any of the matters that have been
14 excluded here?

15 A And I am allowed to mention the low-flow analysis report
16 of December 2000?

17 Q That's correct.

18 A Yes. Well, I would characterize that Pacific Groundwater
19 Group's involvement sort of trickled into work for the
20 Port. At first they acted as a sub-consultant to Earth
21 Tech, which developed a low streamflow analysis report for
22 the Port dated December 2000. That report was reviewed by
23 me. I wrote a memo on March 9 of 2001, is my testimony, I
24 think, I think that remains in my testimony.

25 Q Yes.

AR 055904

1 A So my March 9th memo expresses some concerns with the way
2 the model was applied to the low-flow analysis.

3 Q What were those?

4 A The concerns were that it appeared that stream low flows
5 were going to rely on large concrete vaults, and so I had
6 a concern that those be engineered properly. I just put
7 that in as a heads-up, I'm not an engineer but I made note
8 of that, made note of how the release of water from those
9 vaults had to be done very carefully and probably would
10 require real-time stream gauging so there would be
11 knowledge of when water was needed to augment the stream
12 flows.

13 And then finally, I had a concern about the way the
14 model which was developed in 2000, in this 2000 report,
15 was applied in the December 2000 report.

16 Q And what was that?

17 A That concern was that the cross-section -- I think the
18 Board is going to hear a lot about hydrus and slice, which
19 are models that were used to characterize the fill
20 hydrology. And the use of hydrus and slice in this report
21 done for Ecology was through one section, and it happened
22 to be the thickest section of the embankment.

23 So that thickest section, which is not really
24 representative of the runway fill along its entire length,
25 was multiplied times the entire length to give what I

AR 055905

1 judged, and others suspected also, was an unrepresentative
2 overestimation of the amount of fill and therefore the
3 amount of water that the fill would retain and therefore
4 release. So my concern was expressed that there should be
5 a more detailed integration of that slice or cross-section
6 throughout the entire length of the runway.

7 Q Was it your opinion that that would make the model more
8 accurate, is that why you were recommending it?

9 A Yes.

10 MR. YOUNG: That's all of the questions I have
11 for Mr. Garland.

12 MS. COTTINGHAM: Mr. Reavis.

13 MR. REAVIS: I have just a couple.

14 And I think I understand the ruling that the
15 responses to Dr. Lucia's testimony are still in, is that
16 correct?

17 MR. YOUNG: That is correct.

18

19 EXAMINATION

20 BY MR. REAVIS:

21 Q You mentioned a minute ago that the PGG 2000 study,
22 Exhibit 1178, showed a delayed and dampened effect, is
23 that correct?

24 A Yes.

25 Q Can you explain that for us?

AR 055906

1 MS. OSBORN: That is beyond the scope of the
2 testimony, not the redacted testimony but just the
3 prefiled direct.

4 MS. COTTINGHAM: I think I ruled earlier that he
5 could talk about this study.

6 You may answer the question.

7 A Thank you.

8 Well, delay would be a timing offset, which for low
9 flows in the streams proximate to the fill area is
10 actually a beneficial effect in that more water is
11 provided to the minimum-flow time of year, late August and
12 September. So delay is one thing.

13 Dampening, by dampening, could be best expressed
14 using curves. And if you think of a peaked curve as the
15 water input, to dampen that curve would mean to keep the
16 same area underneath the curve by flattening it, so you
17 have delaying and dampening which gives you less range in
18 flows in discharge rates and makes everything come in a
19 little later.

20 Q The reason I ask that, there's a statement in your
21 prefiled direct talking about Dr. Lucia's comment that
22 there will be a period of up to six years where actual
23 drainage will be less than predicted because of what I
24 think he described as a lag time. Do you remember that?

25 A Yes. But I think he was alluding to more than a lag time.

AR 055907

1 Q My question for you, do you agree with his comment with
2 regard to that particular lag time?

3 A Well, no. I reacted to Dr. Lucia's report when I read it
4 because it presumed that the fill -- it seemed to presume
5 that the fill would be absolutely dry when it was in place
6 and it seemed also to presume that the fill would be
7 placed all at once. And since that won't happen, the
8 construction will probably occur over a six-year period
9 and there's a certain moisture content in the fill when it
10 is in place, further, that typical rainfall during the
11 period of construction is all going to add moisture to the
12 fill, not to mention any water added for compaction or
13 dust control. So there seemed to be this idea that the
14 embankment would not drain at all until some six years had
15 transpired or some such delay. And that kind of delay is
16 not what I referred to earlier, but I think I alluded to
17 observing the existing phase I fill at the airport site,
18 which was in place in '98 and '99, has been draining ever
19 since it was in place.

20 Q Now this experience you've described as a hydrogeologist
21 for twenty-some odd years, has that been in Western
22 Washington?

23 A Yes.

24 MR. REAVIS: I think that's all I have for now.

25 MS. COTTINGHAM: Cross-examination.

AR 055908

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MS. OSBORN: Yes.

EXAMINATION

BY MS. OSBORN:

Q Mr. Garland, please take a look at paragraph ten of your prefiled testimony, and the final sentence in paragraph ten. It states -- do you have it there in front of you?

If the modeled fill is siltier than it is under actual built conditions, the lag may be overestimated and the recharge volume may be underestimated.

Are you saying here that if the soils that are utilized to construct the embankment vary from what has been modeled that the model's results regarding recharge to the streams may be incorrect?

A Yes. And that's --

Q Thank you.

MS. OSBORN: Ms. Cottingham, I asked a yes or no question.

MS. COTTINGHAM: It can be brought out on redirect.

Q (By Mr. Osborn) Your counsel will have his opportunity.

Did any other Ecology hydrogeologist provide substantive review of the Port's groundwater model?

A The year 2000 runway fill study?

Q Any time up through last summer.

AR 055909

1 A Very little. I'm not sure if Mr. Wong reviewed it, I
2 don't think so. Another hydrogeologist, David Massey
3 (phonetic), was on standby to work with me, but I think
4 his role was minimal.

5 MS. OSBORN: That's all we have. Thank you.

6 MS. COTTINGHAM: Mr. Poulin.

7 MR. POULIN: CASE has no questions for
8 Mr. Garland.

9 MS. COTTINGHAM: Redirect.

10 MR. YOUNG: Yes.

11

12

EXAMINATION

13 BY MR. YOUNG:

14 Q I thought you were going to say something there in
15 response to one of those questions. Can you tell us what
16 you were going to say?

17 MS. OSBORN: Objection to the form of the
18 question.

19 MS. COTTINGHAM: Why don't you state the
20 question that you want to ask.

21 MR. YOUNG: Okay.

22 Q In response to one of counsel's questions, you indicated
23 that you had some further answer. Do you recall that?

24 MS. OSBORN: Objection to the form of the
25 question.

AR 055910

1 MS. COTTINGHAM: You didn't really state your
2 question.

3 Q (By Mr. Young) Let's look at paragraph ten of your
4 testimony. Do you have that in front of you?

5 A I do.

6 Q And you were asked a question about the last sentence of
7 that paragraph?

8 A I was.

9 Q And can you explain what that means there, that last
10 sentence?

11 A Yes. Thank you. I just didn't want to take credit for
12 work that wasn't my own originally. This statement that
13 if the model fill is siltier than it is under actual built
14 conditions the lag may be overestimated and the recharge
15 volume may be underestimated, is a qualification stated by
16 the consultant. So Pacific Groundwater Group had that in
17 the context of their conclusion and I thought I should
18 keep it in there since the results are qualified by that
19 caveat.

20 MR. YOUNG: Thank you. That's all I have.

21 MS. COTTINGHAM: Mr. Reavis.

22 MR. REAVIS: Nothing further from me.

23 MS. COTTINGHAM: Board questions.

24 You're excused. Thank you.

25 Mr. Kray, do you want to call your next witness.

AR 055911

1 MR. KRAY: Yes. Our next witness is Chung Yee.

2

3 CHUNG YEE, having been first duly sworn or affirmed to
4 tell the truth, the whole truth, and nothing but the
5 truth, testified as follows:

6

7

EXAMINATION

8

BY MR. KRAY:

9 Q Good afternoon, Mr. Yee. Would you please state your name
10 for the court reporter?

11 A First name is C-h-u-n-g, last name, Y-e-e.

12 Q Are you employed by the Washington Department of Ecology?

13 A Yes.

14 Q What position do you hold at Ecology?

15 A I'm currently environmental engineer three with the toxic
16 cleanup program.

17 Q Have you worked on Ecology's 401 certification to the Port
18 of Seattle?

19 A Yes.

20 Q Would you please summarize your education and professional
21 qualifications relative to the work you did on the 401?

22 A I have bachelor of science degree in mineral engineering
23 from University of Minnesota, master of science in civil
24 engineering from the University of Minnesota, and PhD in
25 civil engineering from the University of Minnesota. I'm a

AR 055912

1 registered engineer in the State of Washington.

2 Q What role have you played in developing conditions for
3 Ecology's 401 certification for the Port?

4 A I put together the draft fill criteria.

5 Q Was the work that you did eventually incorporated into the
6 401?

7 A Yes, sir.

8 Q May we have Exhibit Number 1, please.

9 Mr. Yee, what portions of the 401 was your work
10 incorporated into?

11 A I need some help to narrow down my search.

12 Q Okay. If you look at page 16, I believe it is.

13 MR. KRAY: I think it's page 14.

14 A My work generally starts on page 14 and runs through the
15 middle of page 17.

16 Q Page 17 or is that page 18?

17 A It's page 17 in my volume.

18 Q This is the September 21, 2001 401, correct, at the top?

19 A I have August 10.

20 Q Okay. You're looking at Exhibit 2.

21 Look at Exhibit 1, please. Page 14 of the
22 September 21, 2001?

23 A Yes. Starts with page 14 and runs to middle of page 18.

24 Q What you're describing is condition E, is that correct?

25 A Yes.

AR 055913

1 Q Did you also have a role with regard to the materials on
2 page 18 sub (c), fill sources, and sub (d), prohibited
3 fill sources?

4 A No. That was included at the start, that's part of the
5 starting document I received from the Northwest Regional
6 Office.

7 Q You described a draft set of materials that are now
8 identified as incorporated into here. Who did you provide
9 your draft to?

10 A I provided the draft to Mr. Kevin Kirkpatrick.

11 Q Have you prepared prefiled testimony in this matter?

12 A Yes.

13 Q What subject did you address in your testimony?

14 A The draft fill criteria put together.

15 MR. KRAY: Would you provide Mr. Yee a copy of
16 the prefiled testimony? Thank you.

17 Q What was your understanding of Ecology's purpose in
18 developing the acceptable fill criteria?

19 A The scope of my project was to come up with a fill
20 criteria that would be protective of the groundwater and
21 surface water. And in doing so, I've used the Model
22 Toxics Control Act as a guideline.

23 Q How does your work achieve that purpose?

24 A I've used a fixed parameter three-phase partitioning model
25 contained in the Model Toxics Control Act to derive

AR 055914

1 criteria and protect the surface water and groundwater. I
2 also used the Method A clean fill -- I need to look at the
3 exact words.

4 Q What would help you?

5 A It's actually the Model Toxics Control Act.

6 Q So if we could have Exhibit 279, please.

7 A All right.

8 MR. KRAY: I've provided Mr. Yee with a copy of
9 the Model Toxics Control Act. We have an exhibit problem.
10 I would ask that the Board to take judicial notice that
11 we're dealing with rules here. I don't think there's
12 objection to the WAC itself, we may have a problem making
13 sure everybody is on the same page.

14 MR. WITEK: Ms. Cottingham, the problem we have
15 with it is we have no idea whether there are any markings
16 or anything like that in his copy, and I think we would
17 like to take a look at it.

18 MR. KRAY: I think that's a fair request. There
19 are markings in this particular copy. Those markings are
20 highlighting the various portions, there's certainly no
21 crib sheet or notes or anything of that nature.

22 MR. WITEK: I think our concerns could be
23 addressed if we could look through it quickly.

24 MS. COTTINGHAM: Let's turn off the clock first.

25 (Pause in proceedings).

AR 055915

1 MR. KRAY: Any objection counsel?

2 MR. WITEK: No.

3 (Document handed to witness).

4 MS. COTTINGHAM: Go ahead and go back on the
5 clock.

6 A I've also used the Method A soil cleanup levels on
7 unrestricted land uses as 740-1, as part of the fill
8 criteria.

9 Q I believe the question I had asked was how did your work
10 achieve Ecology's purpose with regard to acceptable fill
11 criteria?

12 MR. WITEK: Ms. Cottingham, we're going to
13 object to that because I think whether or not it achieves
14 the goal is actually one of the issues in this case. So I
15 don't mind if he testifies as to what he thinks they do
16 but whether or not they do calls for a legal conclusion.

17 MS. COTTINGHAM: Restate your question.

18 Q (By Mr. Kray) Mr. Yee, what I was seeking to understand
19 is, you described what you believe Ecology's purpose with
20 regard to the acceptable fill was. And what was the work
21 that you did toward achieving that purpose?

22 A I used the three-phase partitioning model to derive this
23 criteria. The model is designed to calculate soil
24 concentrations that would protect the groundwater or the
25 surface water.

AR 055916

1 Q In preparing your work, did you create any spread sheets?

2 A Yes.

3 Q Could we have Exhibits 21 and 22 please.

4 Mr. Yee, is Exhibit 21 and 22 the spread sheets used
5 to create some of the materials?

6 A Yes.

7 Q What portions of subsection (b) of Exhibit 1 does
8 Exhibit 21, 22 relate to?

9 A Exhibit 21, 22, some of the numbers in page 17, (b), fill
10 criteria table, they came from the spread sheet.

11 Q Can you tell the Board which of those numbers came from
12 the spread sheet, please? Strike that.

13 Rather than identifying individual ones, would you
14 please explain to the Board how you used your spread sheet
15 to generate those numbers that you generated here, more of
16 a procedural thing?

17 A The spread sheet essentially derives the soil criteria for
18 protection of groundwater and surface water. For
19 substances that have a Method A criteria, that would be
20 the values I used initially. So, for example, for
21 determining the soil criteria for protection of
22 groundwater, I first derived the groundwater cleanup
23 level, that's the second page of the spread sheet. After
24 deriving the groundwater cleanup level for a particular
25 substance, I input that into the first spread sheet to

AR 055917

1 derive the soil cleanup level.

2 And for surface water, surface water criteria is
3 shown in the second, the bottom of the first spread sheet
4 and the top of the second spread sheet.

5 Q Is this information explained in greater detail in your
6 prefiled testimony?

7 A Yes.

8 Q Why MTCA Method A?

9 A That's the regulation tool that is available to me.

10 Q Are there other tools available to you?

11 A I've used the natural background concentrations in Puget
12 Sound as the basis for some of these.

13 Q And when did you use natural background concentrations?

14 A I used the natural background to derive numbers that's
15 greater than the natural background level.

16 Q What did you rely on to make that decision?

17 A I relied on the MTCA regulation that permits me to use the
18 natural background.

19 Q Is there a specific portion of MTCA that you would refer
20 to Board to? It's to your left there, the purple book.

21 A I believe it's 173-340-700(6)(d).

22 MS. COTTINGHAM: Did you say (6)(d)?

23 THE WITNESS: (6)(d), as in dog, yes.

24 Q (By Mr. Kray) How does that provision guide your decision?

25 MR. POULIN: Objection. Leading.

AR 055918

1 MS. COTTINGHAM: Overruled.

2 A (6)(d) allows me -- I'll read section (6)(d).

3 In some cases, cleanup levels calculated using the
4 methods specified in this chapter are less than the
5 natural background levels or levels that can be reliably
6 measured. In those situations, the cleanup level shall be
7 established at a concentration equal to the practical
8 quantitation limit or natural background concentration.

9 Q Mr. Yee, I earlier asked you why MTCA A, and you said that
10 was what was available to you. Perhaps I wasn't being
11 clear.

12 Is the work that's been done at the Port of Seattle
13 to provide fill, is that a cleanup site?

14 A No.

15 Q So what I was trying to identify, is there something else
16 you would turn to, to help guide you on the soil criteria
17 levels for that type of work?

18 A I don't -- I don't know of any.

19 Q Are you aware of any federal and state guidelines with
20 regard to fill criteria?

21 A No.

22 Q Would it be fair to say that MTCA A was the best available
23 resource for this?

24 MR. WITEK: Ms. Cottingham, I think this is
25 getting leading.

AR 055919

1 MS. COTTINGHAM: Careful about how you ask the
2 question.

3 Q (Mr. Kray) You had earlier stated that you used MTCA A for
4 some of the numbers. For those numbers that you did not
5 use MTCA A, what did you use?

6 A I used MTCA A numbers when they're available. For
7 substances where MTCA A table doesn't have a number, I've
8 used the MTCA three-phase model to derive the soil
9 concentrations.

10 Q Mr. Yee, what does the term "three-phase" mean?

11 A I believe it's the air phase, solid phase and liquid
12 phrase.

13 Q Would you briefly and in very simple terms describe how
14 that model works?

15 A Well --

16 Q If that's possible?

17 A I think it's best to reference the equations, I guess.

18 Q Okay. What are the salient points of the equations?

19 Let me withdraw that question.

20 Does the equation have components that it directs you
21 to input?

22 A I've used the Fixed Parameter Three-phase Partitioning
23 Model. For that model the only variable for me to input
24 is the distribution coefficient K_d .

25 Q What does " K_d " stand for?

AR 055920

1 A Distribution coefficient.

2 Q What is a distribution coefficient?

3 A I believe it's the distribution coefficient between the
4 soil concentration and the water phase.

5 Q Was there another -- you said the fixed - correct me if I
6 misstate this - the fixed parameters. Was there another
7 model that's a possible option?

8 A MTCA also has an option for you to use input variable
9 parameters.

10 Q Why did you choose the fixed parameter?

11 A In the absence of various parameters, I don't have the
12 parameters to do the variable on the three-phase partition
13 model.

14 Q What would it take to obtain those parameters?

15 A You need to derive various guidance on site-specific data,
16 such as Kd values. You have to derive the soil bulk
17 density, you have to also derive the soil biometric water
18 content and air content.

19 Q At the time you were preparing the draft criteria, what
20 site did you have in mind to use for the criteria?

21 A The fill criteria is designed -- it's a generic, it could
22 be applicable to any site, any borrow site.

23 Q So as I understand, you couldn't use the variable ones
24 because you didn't know which site you would be applying
25 the parameters to, is that correct?

AR 055921

1 MR. WITEK: Object. Leading.

2 MS. COTTINGHAM: I'm going to sustain that.

3 Q (By Mr. Kray) There's no question, I think we've probably
4 already covered this ground.

5 Were there any other methods other than the criteria
6 directly from MTCA, the three-phase partitioning you've
7 described, used to determine the numbers in your chart on
8 page 17?

9 A The top six feet, the terrestrial requirements. That's
10 also derived from the MTCA.

11 Q Is that a separate portion of MTCA than what you've
12 described?

13 A That's a separate portion from the three-phase partition
14 model, yes.

15 Q What portion of MTCA is that?

16 A That's in WAC 173-340-7492.

17 Q Mr. Yee, at some point, I believe you referenced a
18 document called Department of Ecology Implementation Memo
19 Number Three, is that correct?

20 A Yes.

21 Q May we have Exhibit Number 2126, please.

22 Mr. Yee, is Exhibit 2126 the implementation memo
23 we've just discussed?

24 A Yes.

25 Q Does that document list some of the constituents that are

1 also on your list on page 17 of Exhibit Number 1?

2 A Yes.

3 Q If you would please look at the entry for cadmium and
4 please tell us where that is in this document so we can
5 play along?

6 A It's on page three, Table 2.

7 Q This is the soil table?

8 A Yes. I'm sorry, on page 2.

9 Q Page two.

10 MS. COTTINGHAM: I don't think we're all at the
11 same place as you are.

12 MR. KRAY: What you need to do is go from the
13 cover sheet into the tables - turn your thing the other
14 way - and it starts off with water, which is Table 1, and
15 below that is Table 2. And if you go to page two, the
16 constituents are listed alphabetically in the second
17 column.

18 MS. COTTINGHAM: I should correct that. I was
19 not in the same spot. Everyone else was.

20 Q Mr. Yee, with regard to cadmium, perhaps we should start
21 at the top of the table. If you count one, two, three,
22 four, five, six columns over, there is the capitals PQL?

23 A Mm-hmm.

24 Q What does that indicate?

25 A That stands for practical quantitation limit.

1 Q What is a practical quantitation limit?

2 A The practical quantitation limit is defined in MTCA as --

3 Q If you would, please, reference where you're finding that,
4 that would be helpful.

5 A I'm on page 20 of MTCA, Model Toxics Control Act, amended
6 February 12, 2001. Practical quantitation limit or PQL
7 means lowest concentrations that can be reliably measured
8 within specified limits of precision, accuracy,
9 representativeness, completeness, and comparability during
10 routine laboratory operating conditions, using the
11 department approved methods.

12 MS. COTTINGHAM: May I ask a question. Was that
13 in the WAC or RCW?

14 THE WITNESS: I'm reading from the WAC.

15 MS. COTTINGHAM: Thank you.

16 Q Can you give the citation to the Board, please.

17 A MTCA Toxics Control Act, WAC 173-340, amended February 12,
18 2001.

19 Q Specifically where is that definition found within the
20 WAC?

21 A It's on WAC 173-340-200.

22 Q Now, Mr. Yee, if we look at Exhibit 2126, the table that
23 we've been discussing towards the bottom of the page,
24 there are two entries for cadmium, is that correct?

25 A Yes.

AR 055924

1 Q Did you use this table to help guide your decision-making
2 with regard to cadmium in creating the table on page 17 of
3 the 401?

4 A Actually, I used the table for other chemicals. Cadmium
5 is based on the Method A table.

6 Q Did you reference this table in any way for cadmium?

7 A Not for cadmium.

8 Q If you look at cadmium, because we are already on this
9 page, there is a column next to the PQL that looks like
10 somebody hitching a ride, thumbs-up symbol, is that
11 correct?

12 A Yes.

13 Q What is your understanding of that symbol?

14 A The thumbs-up is actually defined in the table, the top of
15 the table.

16 Q What does that mean?

17 A And also defined in the beginning of the document,
18 page II-4 of the implementation memo number three, second
19 paragraph: In some instances indicated by a thumbs-up icon
20 in the tables, the laboratories were able to attain a PQL
21 lower than the federal PQL. For example, Table II for
22 soil indicates antimony using Method 6010 and attains a
23 PQL range of 1.5 to 10 milligrams per kilogram with a PQL
24 of 16 milligrams per kilogram.

25 Q Let me ask you about that reference to Method 6010. What

1 is method 6010?

2 A That's a method reference.

3 Q Now if we look at the next page, next to page II-4, Table
4 1, water, there is in the third column "method" and then
5 it looks like there's numbers running down that column.
6 What is your understanding of those numbers?

7 A Can you tell me which column?

8 Q The third column headed "method"?

9 A These are method numbers.

10 Q Are there a lot of different methods?

11 A Yes.

12 Q We'll go back to cadmium, since we've already there and
13 hopefully people have kept their thumb on that page.
14 Cadmium has two entries, correct?

15 A Yes.

16 Q The numbers for the PQL, why is there a difference between
17 the PQLs for the two entries?

18 A They are from the analytical methods.

19 Q And what is an analytical methods?

20 A Method they use to determine the concentration of the
21 substance you're looking for.

22 Q So do you recall which of these constituents listed on
23 page 17 of the 401 you would turn to this table for?

24 A It's referenced in my direct testimony, line by line.

25 Q Okay. So if the Board reviews your direct testimony

1 they'll see those instances in which you used this
2 particular method?

3 A Yes.

4 Q How do your numeric criteria on page 17 of the 401 relate
5 to natural background concentrations of constituents?

6 A Some of them are derived based on natural background.

7 Q What about those that are not?

8 A The fill criteria in page 17 is first based on the Method
9 A table or derived based on protection of groundwater and
10 surface water. If the derived values are for example
11 greater than, I believe, the natural background -- I'm
12 sorry, I need to refer --

13 (Pause in proceedings).

14 Q Your prefiled testimony is in the corner, if that's what
15 you're looking for, Mr. Yee?

16 A Yes.

17 If the derived values are lower than the natural
18 background, the fill criteria would be based on the
19 natural background.

20 Q Why is that?

21 A That's one of the provisions given to me under the Model
22 Toxics Control Act.

23 Q Offhand, do you recall where in the Model Toxics Control
24 Act that provision is? Is it indicated in your prefiled
25 testimony?

1 A Yes.

2 Q Let's switch subjects slightly and get to the subject that
3 I believe is of great interest to the Board. Let's turn
4 to page 16 of the -- actually, yes, turn the page 16 of
5 Exhibit 1, the 401. And at the bottom, there is a chart.
6 Have you found that?

7 A Yes.

8 Q What is the purpose of that chart?

9 A That's the sampling schedule for the fill sources.

10 Q And were you present earlier today for some of the
11 testimony regarding sampling under the 401?

12 A I was here when Mr. Kirkpatrick was on the stand.

13 Q Do you recall hearing some discussion about phase I and
14 phase II site assessments?

15 A Yes.

16 Q Do you reference phase I and phase II site assessments in
17 the 401?

18 A Yes.

19 Q Would you please describe what a phase I site assessment
20 is under ASTM?

21 A Phase I assessment generally consists of a record review,
22 site inspection, interviews of owners. These are major
23 items.

24 Q Would a phase I site assessment also include aerial photos
25 on occasion?

1 A Yes.

2 Q In your work, have you had an opportunity to conduct phase
3 I site assessments?

4 A Yes.

5 Q What is the role of sampling in a phase I site assessment?

6 A There is no sampling requirement for phase I assessment.

7 Q What is a phase II site assessment under ASTM?

8 A Phase II assessment simply, by completing the phase I
9 environmental site assessment, you determine whether a
10 site has the potential to have, for example, soil
11 contamination. In the event it has a high probability of
12 soil contamination, then you proceed to phase II, whereby
13 you develop the sampling plan, collect samples, analyze
14 samples and prepare the report.

15 Q What is the relationship between the table on page 16 of
16 the 401 and the sampling you've described in the phase II
17 site assessment, as you understand condition E?

18 A The sampling schedule on page 16 is designed primarily for
19 site impacts in phase I ESA, environmental site
20 assessment, for sites that have potential to have soil
21 contamination, as written, the Port is required to consult
22 with Ecology to determine the sampling parameters and
23 sampling schedule.

24 Q What are Ecology's options when presented with that type
25 of information?

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1 A They may elect to increase the sampling parameters, they
2 may elect to increase the sampling frequency, or they may
3 elect to veto the site.

4 Q I'm sorry, I misunderstood the last statement you made.
5 Would you repeat that, please?

6 A They may veto the site as a fill source.

7 Q When you say "veto," am I accurate to understand they
8 cannot use that site?

9 A Yes.

10 MR. POULIN: Your Honor, I move to strike that
11 answer as presenting a conclusion of law.

12 MR. KRAY: Your Honor, if I could be heard on
13 that issue. The Department of Ecology is the agency
14 charged with enforcing the laws. In expressing Department
15 of Ecology's 401, I think he is entitled to express his
16 opinions on how to interpret the agency's documents.

17 MS. COTTINGHAM: I'm going to overrule the
18 objection.

19 Q (By Mr. Kray) Mr. Yee, if you look at page 18 of the 401,
20 at the top of that page there are a number of footnotes
21 and then it returns to the main text. Would you look at
22 the first full paragraph there, and where it begins with
23 "for hazardous substances," would you read that to
24 yourself, please, and let me now when you're done?

25 MS. COTTINGHAM: Will you tell me what page

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1 you're on?

2 MR. KRAY: Certainly. Page 18 of 401 and
3 footnotes (4), (5), and (6). And I'm referring to the
4 first full paragraph below those footnotes.

5 Q Was this language language that you drafted?

6 A Generally, yes. The only difference is I believe I
7 referenced consult with the Northwest Regional Office
8 Water Quality Department.

9 Q So your draft changed who is to be referenced, but
10 otherwise this is the same language you drafted?

11 A Yes.

12 MR. KRAY: No further questions.

13 MS. COTTINGHAM: Mr. Reavis.

14 MR. REAVIS: I have no questions.

15 MR. WITEK: Ms. Cottingham, I would alert the
16 Board that I don't think I'll be finished with my
17 questions before five.

18 MS. COTTINGHAM: What's the pleasure of the
19 parties?

20 MR. KRAY: I believe we are here, Mr. Yee is
21 here, let's get as far as we can before 5 o'clock.

22 MS. COTTINGHAM: All right.

23 Mr. Yee, are you from the Olympia area?

24 THE WITNESS: Yes.

25 MS. COTTINGHAM: Okay.

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EXAMINATION

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BY MR. WITEK:

Q Good afternoon, Mr. Yee. My name is Mike Witek.

Do you have your prefiled testimony there?

A Yes.

Q Can you look at paragraphs two and three on page two.

A Okay.

Q In paragraph two, it appears to describe what you were asked to do in developing the fill criteria, and then there's a quote, and I'll just read it to you, it says: I was asked to develop fill criteria for the third runway project that are, quote, technically consistent with toxics program policy and guidance and do not contradict or present a conflict with the Model Toxics Control Act. Did I read that correctly?

A Yes.

Q Then there's a similar quote in paragraph three, is that right?

A Yes.

Q And it appears that those quotes refer to this e-mail that's listed in the paren, is that right, it says e-mail dated June 4, 2001?

A Yes.

Q Can you take a look at Exhibit 21.

Is this the e-mail that's quoted in your prefiled

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1 testimony?

2 A Yes.

3 Q Do you recall me taking your deposition on December 17,
4 2001?

5 A Yes.

6 Q Do you recall me asking you questions about this e-mail?

7 A I recall you asking questions, yes.

8 MR. WITEK: It's page 26, line 22, counsel.

9 MS. COTTINGHAM: Of what?

10 MR. WITEK: Of Mr. Yee's deposition.

11 MR. REAVIS: Let me just -- I don't think this
12 has been admitted as an exhibit. I think he needs to ask
13 the witness a question before he starts reading from the
14 deposition. It's an improper use of the deposition.

15 MS. COTTINGHAM: Sustained.

16 Q (By Mr. Witek) Mr. Yee, in paragraph two of your prefiled
17 testimony, you state that you were asked to develop fill
18 criteria for the third runway project that are, quote,
19 technically consistent with the toxics program policy and
20 guidance and do not contradict or present a conflict with
21 the Model Toxics Control Act. Is that correct?

22 A Yes.

23 Q Do you remember me asking you about the e-mail that's
24 quoted here and about the scope of your work during your
25 deposition on December 17th, 2001?

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1 A Yes.

2 Q Did I ask you what the scope of the work was that you were
3 requested to do?

4 A I don't recall specifically, no.

5 MR. WITEK: Ms. Cottingham, I think at this
6 point I'm allowed to go to the deposition to impeach.

7 MR. KRAY: Actually, I think you're allowed to
8 go to the deposition to refresh his memory at this point
9 to see whether you can go there for impeachment. So I
10 object to the scope of that statement.

11 Q (By Mr. Witek) Question: Have you had a chance to look
12 at Exhibit 21?

13 Answer: Yes.

14 Question: Can you tell me what this is?

15 Answer: This I believe is the e-mail sent to me by
16 Kevin Fitzpatrick detailing, outlining the scope of the
17 work for me and also the attachments for various versions
18 of the then existing draft clean fill criteria.

19 Question: In the second paragraph --

20 MR. KRAY: Objection. Pardon me for
21 interrupting, Mr. Witek. I believe how we got on this
22 path was an opportunity to refresh the witness' memory,
23 and now I believe we've moved on to using the deposition
24 as an exhibit.

25 MR. WITEK: Ms. Cottingham, I'm using this for

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1 impeachment purposes and the statements in the prefilled
2 testimony describe the scope of work that he was asked to
3 do in one way, and in his deposition and this e-mail it's
4 described in another way. To the extent that's a prior
5 inconsistent statement, we're entitled to go through the
6 deposition testimony.

7 MS. COTTINGHAM: Because we used prefilled
8 testimony, I believe this is a way to impeach the prefilled
9 testimony, which is the direct examination in written
10 form. So I'll allow it.

11 Q (By Mr. Witek) Question: In the second paragraph, item
12 two states, quote, response to comments and concerns
13 raised by Pete Kmet on this language, end quote. Is that
14 a task you were asked to undertake?

15 Answer: It's a task outlined in this e-mail, yes.

16 Do you remember me asking you those questions and you
17 giving those responses?

18 A Yes.

19 Q Who is Peter Kmet?

20 A He is the toxics cleanup program environmental engineer
21 five in the policies program.

22 Q Do you remember what the concerns were and comments were
23 that Mr. Kmet raised?

24 MR. KRAY: Ms. Cottingham, I would like to raise
25 a point of objection now. I don't have an objection to

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1 indirect questioning, however, I do have an objection to
2 the use of Mr. Kmet. That is, Ecology has called the
3 witnesses it has identified as speaking agents for the
4 department in this matter. Mr. Kmet is not a witness in
5 this case. ACC and possibly CASE are indicating --

6 MR. STOCK: Could we stop the clock for this
7 objection, because it's going way beyond the objection to
8 the question.

9 MS. COTTINGHAM: You may stop the clock.

10 MR. KRAY: ACC and CASE have indicated that they
11 would like to have Mr. Kmet's testimony. But for the
12 record, I don't believe that Mr. Kmet speaks for the
13 Department of Ecology in regard to the 401 and can be used
14 for that purpose. That's my objection.

15 MR. WITEK: Ms. Cottingham, I think the theory
16 of the case we heard from the Department of Ecology in
17 their opening is that we assembled a team of 401-people
18 together and we listened to our technical experts. In
19 this case they've said that they've listened to Mr. Yee on
20 the fill criteria, so I think it's important to look at
21 what was the scope of work that Mr. Yee was asked to do.
22 One of the things that Mr. Yee was asked to do, as we've
23 established in deposition Exhibit 21, was to respond to
24 the comments and concerns raised by Pete Kmet. So I think
25 it's important for the Board to understand what those are

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1 and that's why I'm going through this.

2 MR. KRAY: Ms. Cottingham, if I may respond.
3 I don't have an objection to Mr. Witek going through this
4 process, however, I anticipate that when we get to the
5 attempted publication of Mr. Kmet's deposition that we'll
6 have this issue more fully embraced, and I want to note at
7 this time so that I'm not accused of waiving the objection
8 as we go through this process that that will be something
9 that we'll raise.

10 MS. COTTINGHAM: Is Mr. Kmet on your witness
11 list?

12 MR. WITEK: I believe we had a note, I believe
13 he was on our earlier witness list and then when we
14 presented our order of witnesses we had a note on there
15 indicating we could call certain Ecology people either by
16 live testimony or by deposition.

17 MR. KRAY: This time they did not call
18 Mr. Kmet by live testimony. We've done their case now.

19 I guess the other point I was making, I think this
20 goes more to the concept of the 30(b)(6) issue and who
21 under 30(b)(6) designates speaking agents for a particular
22 party. And our belief is that 30(b)(6) says that the
23 party who controls that indicates who their speaking
24 agents are, and Ecology has not designated Mr. Kmet as a
25 speaking agent with regard to the 401.

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1 MR. WITEK: Ms. Cottingham, I think the problem
2 here is we're basically attempting to argue the 30(b)(6).
3 I would like to note that Mr. Kmet's deposition has
4 already been conditionally admitted, pursuant to your
5 prior ruling.

6 MR. KRAY: I would agree with that statement,
7 but I don't think it's been admitted for as broad a
8 purpose as ACC would like it to be.

9 MS. COTTINGHAM: In my earlier ruling it was
10 narrowed for the topic matter of which he was designated.

11 MR. KRAY: For Mr. Kmet he was not designated
12 for any topic matter by Ecology, Ms. Cottingham.

13 MS. COTTINGHAM: In your motion do you identify
14 purposes on the published --

15 MR. STOCK: Ms. Cottingham, may I -- since I
16 argued the motion to publish for ACC.

17 That was the whole issue with respect to the motion
18 to publish. We had an exchange of e-mails and
19 correspondence with Ecology where we repeatedly asked
20 Ecology to designate 30(b)(6) deponents. Ecology
21 repeatedly refused. We then set a letter saying, all
22 right, if you want to say you've identified your
23 witnesses both in interrogatory responses and on your
24 witness lists and those are your witnesses, then we will
25 accept those as your 30(b)(6) deponents. And if you have

1 a disagreement with that, let us know so we can
2 immediately bring it to the Board's attention. And
3 Ecology didn't do anything about that. So it was on that
4 basis that we brought the motion to publish certain of the
5 depositions as 30(b)(6) designees, and the Board's order
6 then conditionally granting that motion says that with
7 respect to publications of depositions requested under
8 Rule 30(b)(6), this will be conditionally granted but only
9 for those matters specifically designated. This applies
10 to the depositions for Ann Kenny, Erik Stockdale, John
11 Drabek, Kevin Fitzpatrick, and Peter Kmet. And then your
12 order goes on and says the admission is subject to certain
13 conditions.

14 So with respect to the designations, ACC's letter
15 identified five broad categories of designations and those
16 five categories basically are the different conditions set
17 out in the 401 certification, the storm water, the
18 wetlands, fill criteria, and there are several others.
19 And we can go back and look at the letter, it's attached
20 to Mr. Witek's declaration.

21 So there's no question that we included Mr. Kmet in
22 our motion to publish, arguing that he was a 30(b)(6)
23 designee for the Department of Ecology, and based upon the
24 arguments presented, the Board went ahead and made the
25 order that it did.

1 MS. COTTINGHAM: It was those five general
2 categories that we viewed as the specific designations.
3 So Mr. Kmet is specifically designated on fill criteria.

4 MR. KRAY: May I be heard on this a little bit
5 further, Ms. Cottingham?

6 First off, Mr. Stock has misstated Ecology's response
7 on the 30(b)(6). Our response was 30(b)(6) witnesses are
8 those witnesses that Ecology has designated as witnesses
9 in this matter. Second of all, your order contains the
10 provision -- and this is why I didn't bring it up earlier
11 because I was relying on this order when I read it the
12 other day. Sub (1) on page two, admissibility, it says:
13 If the witness is a 30(b)(6) witness, the specific
14 designation must be clearly stated. ACC has not yet told
15 the Board what designation it's attempting to use for
16 Mr. Kmet.

17 MR. STOCK: Well --

18 MR. KRAY: Excuse me, I'm speaking. Would you
19 have a seat, please.

20 MR. STOCK: We're arguing and at times I like to
21 stand up during argument.

22 (Laughter).

23 MS. COTTINGHAM: This may be why I suggested
24 the 4 o'clock closing on Friday. Not enough sugar or
25 something.

1 MR. KRAY: My only point is I don't think we've
2 really crossed this bridge, and that is precisely why I
3 wanted to bring it up now, so we preserve our objection
4 for when we see the designation and the purpose for which
5 they're attempting to use Mr. Kmet.

6 MS. COTTINGHAM: As you will remember, we
7 asked that there be a process for publishing the
8 deposition. You've not yet complied with the conditions
9 for that, so we have not seen the conditions which we
10 imposed for each of the depositions.

11 MR. STOCK: The difficulty is that would turn
12 Rule 30(b)(6) on its head by having us designate. The
13 Board's order, as I understood it, was based upon the five
14 categories that was in our letter to Ecology and Ecology's
15 refusal to respond to that. It's Ecology that designates,
16 and by refusing to respond to our letter, it was my
17 understanding that the Board's order was that these
18 witnesses were designated for those five categories
19 contained in our letter.

20 MS. COTTINGHAM: And your introductory
21 statement must include which of those five areas for each
22 of the depositions. I'm not asking for Ecology to take
23 an affirmative action, I'm asking you to say which of
24 those five areas.

25 MR. STOCK: For each of the depositions, and we

1 will do that.

2 MS. COTTINGHAM: So the question then becomes
3 how to use that stuff until you've presented the document
4 as set forth in the order.

5 MR. KRAY: Ms. Cottingham, I have no objection
6 to Mr. Witek's line of questioning, I just wanted to note
7 for the record that we object in anticipation of this
8 issue coming up to Mr. Kmet being used as a 30(b)(6)
9 witness on behalf of Ecology.

10 MR. STOCK: Right now, Ms. Cottingham, we are
11 not using Mr. Kmet's deposition. It is an e-mail and it's
12 an e-mail from Mr. Kmet. Ultimately, based upon the
13 Board's order, we will be selecting portions of Mr. Kmet's
14 deposition and including the clean fill criteria and
15 anything else that Mr. Kmet talks about in his deposition
16 as those areas where Mr. Kmet will be designated. But for
17 purposes of what Mr. Witek is doing here, I think it's a
18 nonissue. This is an e-mail from Mr. Kmet and I think
19 that is proper use for Mr. Yee's cross-examination here.
20 It's in the record, it's already developed, there's no
21 question about authenticity, they have got a hearsay
22 objection and Mr. Witek is using it for background and
23 context.

24 MS. COTTINGHAM: I believe your argument was to
25 preserve a place holder, if you will, so with that I think

1 we'll move on. It is getting a little close to time to
2 adjourn for the day. Would this be a good breaking point?

3 MR. STOCK: There are a few other matters that I
4 wanted to bring up more along the lines of housekeeping
5 matters.

6 MS. COTTINGHAM: Hang on before we go there.

7 Why don't we adjourn for the day, I'll let the other
8 board members take leave and then we will keep on the
9 record.

10 So with that we conclude today.

11 (Pause in proceedings).

12 MS. COTTINGHAM: The first thing I always like
13 to do is to hear the timekeeping report from our more than
14 adequate time keeper.

15 MR. POULIN: The clock reports appellants have
16 used one hour 38 minutes and 11 seconds. And the
17 respondents have used 3 hours 9 minutes and 23 seconds.

18 MS. COTTINGHAM: Three hours, 9 minutes and --

19 MR. POULIN: 23 seconds.

20 MS. COTTINGHAM: Okay. Mr. Stock, you can --

21 MR. STOCK: One minor matter. For the purpose
22 of comfort of Ecology witnesses -- I overheard one of them
23 say "Do we have to sit here?" And for the comfort with us
24 conversing with each other, on Monday, would it be
25 possible to move the reserve witness chairs over along the

1 side there so they can feel comfortable they are with
2 their lawyers?

3 MS. COTTINGHAM: Whatever works in this room so
4 as long as we do not impair the ability of the public to
5 have access to the last two rows.

6 (Pause in proceedings) .

7 MR. STOCK: We'll figure it out.

8 MS. COTTINGHAM: Let's go back on the record.

9 MR. STOCK: The other thing I wanted to raise
10 was I do want to make an affirmative request for a credit
11 of ten minutes allocated to the appellant intervenor's
12 time. As I was sitting here and observing Mr. Eglick and
13 Mr. Poulin cross-examine Mr. Fitzpatrick, I think it
14 became very apparent that Mr. Fitzpatrick was using long
15 speaking answers to beat the clock against us, and I am
16 very concerned that as we go throughout the next week,
17 given the hours of the limited hours that remain that,
18 unless the witness complies with your request to keep
19 their answers simple, a lot of time is going to be eaten
20 up with nonresponsive answers. And I think you saw that
21 today with Mr. Fitzpatrick, where he was not responsive to
22 Mr. Eglick's questions. And for one specific example that
23 I noticed was when Mr. Eglick was just trying to get a
24 simple yes answer out of Mr. Fitzpatrick and Mr. Eglick
25 had asked the simple question whether the sampling issues

1 could be resolved, it took four minutes, and I watched the
2 clock, it took four minutes for
3 Mr. Fitzpatrick to finally get around to giving the simply
4 yes answer.

5 MS. COTTINGHAM: I'm not going to give you time
6 to respond. I'm going to remind you when we had the
7 timekeeping allocation that the sanctions, if you will,
8 were to the attorney on either side of using the system.
9 I did not necessarily see a witness abusing the system and
10 we did not take that into account and I believe it comes
11 out in the wash on both sides. So I'll note your concern
12 at this point in time and be mindful of it. You can raise
13 an objection if there's nonresponsiveness.

14 MR. STOCK: I would appreciate that because the
15 reality is they have 31 witnesses to our 11, so that is
16 going to work to our substantial prejudice.

17 MS. COTTINGHAM: Before the other board
18 members leave, we've gone through Fitzpatrick and Garland.
19 What is the order for Monday?

20 MR. KRAY: The order for Monday will be to
21 complete Mr. Yee, and then I believe we'll return to
22 Mr. O'Brien and then we'll go to Mr. Wang, Mr. Walter,
23 Mr. Stockdale -- and give me a moment, I'll look at the
24 list and I can tell you where we go after that.

25 Probably Mr. Whiting and then Mr. White. Ecology has

1 not yet determined whether it will have Ms. Kenny testify
2 further.

3 MR. STOCK: When will we know that?

4 MR. KRAY: On Monday.

5 MR. STOCK: Is there a chance she'll get up on
6 Monday?

7 MR. KRAY: You saw how it went today, Kevin, I
8 would be really surprised. I don't intend to put her on
9 on Monday.

10 MS. COTTINGHAM: Are there any other minor
11 matters?

12 With that we'll adjourn for the day. Thank you.

13 (Evening recess at 5 o'clock)

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C E R T I F I C A T E

STATE OF WASHINGTON)

ss

COUNTY OF THURSTON)

Betty J. Koharski, Notary Public in and for the State of Washington, residing at Olympia, does hereby certify:

That the annexed and foregoing Transcript of Proceedings, pages 5-0001 through 5-0186, was reported by me and reduced to typewriting by means of computer-aided transcription;

That said transcript is a full, true and correct transcript of my shorthand notes of proceedings heard Before the Pollution Control Hearings Board on March 22, 2002 at Lacey, Washington;

That I am not a relative or employee of counsel or either of the parties therein or otherwise interested in said proceedings.

WITNESS MY HAND AND OFFICIAL SEAL this 22nd day of April, 2002.



Notary Public, in and for the State of Washington, residing at Olympia. My commission expires September 17, 2003. Washington CSR No. KOHARBJ619BN