- 1 there ever occasions when you dive with the animals?
- 2 A. No.
- 3 Q. Is there any kind of interaction where you would
- 4 touch the animals in any way?
- 5 A. No.
- Q. Is there any kind of guideline in terms of how
- 7 close you're permitted to come to the animals?
- 8 A. Yes.
- 9 Q. How close can you get to the animals?
- 10 A. 100 meters.
- 11 Q. What are you supposed to do if the animals just
- 12 start coming towards you?
- 13 A. It's quite common. We take our engines out of
- 14 gear. We shut off and wait for them to move off. It's
- 15 quite a frequent occurrence because in our work we do a
- 16 lot of invertebrate sampling; so we'll have stations where
- 17 we'll be throwing nets to collect invertebrates, and
- 18 frequently the whales will collect invertebrates too and
- 19 they'll -- we just have to wait them out.
- 20 Q. So you don't move away from them; you just --
- 21 A. If they're in too close, we more or less wait.
- Q. And you said they frequently do come closer to
- 23 the boats. Is that because they're curious about boats or
- 24 do you think it's because they're looking for the same
- 25 invertebrates that you are and just happened to be there?

- 1 Or what's your theory of why that happens?
- 2 A. I think that most of what all cetaceans do has to
- 3 do with procurement of food; so we know how tightly tied
- 4 the animals are to their food sources. A lot of people
- 5 interpret curiosity. I don't.
- Q. And why is it you don't think there's any
- 7 curiosity from the animals? What makes you believe that?
- 8 A. Well, I don't interpret it because I can't verify
- 9 it.
- 10 Q. Okay. Other than the boat safety that we
- 11 discussed, anything else related to the supervision of the
- 12 research crew as it would relate to safety?
- 13 A. In the research setting every activity we
- 14 undertake on the docks, on land, we have a protocol for
- 15 the safe execution. We work in a setting that's rife with
- 16 wolves, bears, mountain lions, quite close up to our
- 17 station; so every time you leave the house, there's an
- 18 array of equipment and there's a procedure. Muster sheet,
- 19 check in times. And behaviors that we specifically rule
- 20 out.
- Q. Does anything that you do in your research or any
- 22 capacity professionally involve actual interaction with
- 23 any animals?
- A. We don't specifically look to interact with them.
- 25 That would be a -- in our studies, that would be a

- 1 methodological difficulty.
- Q. Could you explain why that would be so?
- 3 A. Perhaps the best explanation is if I could use
- 4 Jane Goodall for an example. Jane studied chimpanzees for
- 5 years, but she studied them at very close quarters and she
- 6 manipulated them by providing food and also interacting
- 7 contact with them. So the behavior of the chimpanzees was
- 8 influenced by her presence. So in order to understand
- 9 what that is, you need a comparative study without the
- 10 interaction. .
- 11 So our study's of ecology and behavior, if it's
- 12 possible, and we do our best to maintain a very distant
- 13 presence. We don't have any way of knowing, for instance,
- 14 especially with killer whales, what they're sensing, the
- 15 array of things and the distance at which they sense
- 16 things. So, you know, when you see a killer whale's
- 17 behavior change, the possibility of a bunch of stimulus
- 18 that you're not aware of. It could be a school of fish
- 19 moving 400 feet below the surface, could be a noise coming
- 20 from one direction or another. You don't know. So our
- 21 research is dependent on keeping our interaction out of
- 22 it; so we purposely try and stay out of the way.
- Q. So you don't have any information or studies or
- 24 experience with interaction with animals?
- 25 A. Direct interaction?

- 1 Q. Yes.
- 2 A. No.
- Q. And you wouldn't have any kind of safety
- 4 experience related to interaction with animals as a zoo
- 5 setting, for instance?
- 6 A. No.
- 7 Q. Or animals in a marine setting or -- not a marine
- 8 setting, an aquarium setting?
- 9 A. No.
- 10 Q. How about your role on the diving safety
- 11 committee? For what purposes do you dive in your
- 12 professional capacity?
- A. Well, my crews occasionally will dive to sample.
- Q. What do they sample?
- 15 A. Primarily prey.
- Q. Okay. So when you say "prey," what does that
- 17 include?
- 18 A. Mostly two or three different types of baleen
- 19 whale prey.
- Q. And what would that be? What kind of prey is
- 21 that?
- 22 A. For instance, species groups, the mysid shrimp,
- 23 benthic arthropods, intertidal crab larvae and ghost
- 24 shrimp.
- Q. And that's diving for that specific prey of that

- 1 specific whale?
- 2 A. M'mm-hmm.
- Q. Okay. And while they're diving for that prey, is
- 4 there any interaction with the whales who are hunting that
- 5 prey?
- 6 A. No.
- Q. All right. Going to the Keltie Byrne inquest.
- 8 How did you get selected for that inquest group?
- 9 A. The coroner's council contacted me and suggested
- 10 that I would be interested in doing it. A minor argument
- 11 ensued. I pointed out that I wasn't, and he pointed out
- 12 that indeed I was.
- Q. Did you have a choice to be included or was that
- 14 something that was required of you?
- 15 A. She is able to subpoena and she --
- 16 Q. When you say "she" -- I'm sorry, I'm confused.
- 17 A. The coroner.
- 18 Q. The coroner, okay.
- 19 A. Yes. But her counsel made the point that what
- 20 they're going to try and do on the jury was get people
- 21 with experience in the area who can contribute their
- 22 experience to a well-rounded assessment.
- Q. Did you actually receive a subpoena to --
- 24 A. No.
- Q. -- participate?

- 1 my principal recollection is that it was very sparse.
- Q. Her testimony?
- 3 A. Her testimony was --
- Q. Very sparse?
- 5 A. Her recollection was sparse.
- 6 Q. And when you say it was "sparse," what do you
- 7 mean by that?
- 8 A. Well, she didn't seem to know exactly what
- 9 happened. Her back was turned when Keltie slipped into
- 10 the water, and she didn't fill in too many gaps. I know
- 11 the jury as a group were a little frustrated by that, but
- 12 of course understanding -- it was our belief she was a --
- 13 fairly shocked by the events that ensued.
- 14 Q. Had they ever had someone fall into the water
- 15 with the killer whales before?
- 16 A. I don't know. And we didn't know.
- 17 Q. Was that a question anyone asked?
- 18 A. We asked the chief trainer, and we also asked one
- 19 of the original trainers, a fellow who's gone on to make a
- 20 career in killer whale science named Graeme Ellis, who was
- 21 the original trainer. And he pointed out to us that they
- 22 used to swim with the whales daily.
- Q. Okay. So he testified and said that at some
- 24 point in time they actually swam --
- 25 A. Yes.

- 1 A. Yes.
- Q. Are you -- by that, are you saying that after she
- 3 had already fallen into the pool, that is, when the whales
- 4 came and pulled her away from the edge?
- 5 A. Yes, the whales didn't pull her into the pool.
- 6 She slipped and fell, according to the synthesis of
- 7 testimony. She did attempt to get out of the water.
- 8 That's when the whales pulled her back in.
- 9 Q. Did the Sealand park keep any kind of records of
- 10 their shows or the interactions that they had with the
- 11 killer whales?
- 12 A. Not that we were provided with.
- 13 Q. Now, in your report, when you say that Tilikum
- 14 actively killed Keltie Byrne, you know that it was Tilikum
- 15 who did that and not the other two killer whales?
- 16 A. According to witnesses, Tilikum was the whale
- 17 that held Keltie in his mouth for the duration and
- 18 submerged her. Of course these folks weren't experts, but
- 19 Tilikum's -- even then he was fairly distinctive.
- Q. So if these same people at Sealand had told
- 21 SeaWorld a different version of events, then they would
- 22 have been misstating what you heard in the sworn
- 23 testimony?
- 24 A. The testimony in the transcripts are a matter of
- 25 public record, and I believe there was news reports at the

- Q. And how would that be done?
- A. Well, you guys are the experts. You've got all
- 3 the materials, you've got the history and a lot of
- 4 creativity, SeaWorld does, so I'd suggest they go to work.
- 5 I don't know. I suggest that people put their heads
- 6 together and think about how they can balance stuff. And
- 7 if you want to risk people, well, I mean, that's not what
- 8 -- I'm not part of a regulatory agency or anything. I'm
- 9 just saying that you do risk and that's up -- completely
- 10 up to the powers that be. I'm not walking -- I can't be
- 11 -- walk down the path of such a small probability that
- 12 it's okay to take these risks.
- Q. Well, I mean, you were providing testimony as an
- 14 expert for the government in this case?
- A. M'mm-hmm.
- 16 Q. The government has an action against SeaWorld,
- 17 and their action by virtue of this citation and by virtue
- 18 of testimony that's been taken is, SeaWorld, you can't
- 19 have any close contact with killer whales?
- 20 A. That would be the government's business. I did
- 21 not tell the government to issue that citation and -- or
- 22 participate in the wording or the delivery of a citation
- 23 to anybody for any reason in any foreign country. I
- 24 provided an opinion based on materials I was given that
- 25 asked me to examine, give my opinion about risk,

- 1 uncertainty and the fundamental nature of an animal that
- 2 I've spent 25 years with.
- Q. Well, I mean, the net effect is you're providing
- 4 testimony in a case that is telling a company you can't do
- 5 the business that you're doing, which is partially housing
- 6 killer whales and maintaining them in captivity and having
- 7 --
- 8 MS. HOWARD-FISBURNE: I'm going to object to the
- 9 form of the question.
- 10 MS. GUNNIN: You can answer.
- 11 Q. I mean, that's what this case is about. So
- 12 ultimately if you're saying that SeaWorld is the expert on
- 13 the issue and they need to go back and think about what
- 14 they're doing, but you're not telling them what they
- 15 should do, then --
- 16 A. I have some ideas. If you just get the people on
- 17 your side to just write me a contract, I'd love to engage
- 18 in the idealization of what might be done. But -- I mean
- 19 that sincerely. I've got no particular bone to pick with
- 20 the citation and SeaWorld and the corporate behavior and
- 21 the governance of these operations in the United States.
- 22 That is the outcome, but that is not my outcome. My
- 23 outcome is just expressing an opinion. And I mean that
- 24 sincerely, that SeaWorld does have a lot of expertise. I
- 25 would like to see them incorporate that and outside -- and

- 1 a really high margin of safety so that the uncertainty can
- 2 be cornered. My main concern is I don't -- the coroner's
- 3 reports.
- 4 Q. So taking from what you just said then, you
- 5 wouldn't have a problem if SeaWorld continued its shows as
- 6 long as they did it in such a way that provided a level of
- 7 safety for the employees that would be better than what
- 8 they had in the past?
- 9 A. I've got no particular issue with SeaWorld, their
- 10 shows. I guess my main concern is the bar -- is the
- 11 height of the bar for safety.
- 12 Q. And have you read anything about the efforts that
- 13 SeaWorld is making to improve the safety for the killer
- 14 whale trainers?
- 15 A. There was a bit of material and then we were able
- 16 to see where they intend to implement the rising floor.
- 17 There's bits of material here and there, and I think part
- 18 of it is in the citation, but I can't recall for sure now.
- 19 Q. Do you know anything about the rising floor?
- 20 A. Just from what the engineer explained to us about
- 21 the speed with which they could raise the floor.
- Q. And when did the engineer explain that to you?
- 23 A. Whilst we were sticking around the site on our
- 24 site visit.
- Q. Okay. Do you have an opinion about that as a