

UNITED STATES OF AMERICA

USCG MARINE BOARD OF INVESTIGATION

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In the matter of: *
*
MARINE BOARD OF INVESTIGATION *
INTO THE SINKING THE SS *EL FARO* *
ON OCTOBER 1, 2015 *
*
* * * * *

Prime F. Osborn III Convention Center
Jacksonville, Florida

Monday,
February 13, 2017

APPEARANCES:

Marine Board of Investigation

CAPT JASON NEUBAUER, Chairman
KEITH FAWCETT, Member
CDR MATTHEW J. DENNING, Member
LCDR DAMIAN YEMMA, Recorder
CDR JEFF R. BRAY, Legal Counsel

Technical Advisors

CDR MICHAEL ODOM
CDR MICHAEL VENTURELLA
LT MICHAEL COMERFORD
JEFFREY STETTLER, Ph.D.
PAUL WEBB

National Transportation Safety Board

BRIAN YOUNG, Investigator in Charge
MICHAEL J. KUCHARSKI, Marine Accident Investigator

Parties in Interest

LUKE M. REID, Esq.
TOTE Services

GERARD W. WHITE, Esq.
American Bureau of Shipping (ABS)

SPENCER A. SCHILLING, P.E.
Herbert Engineering Corporation

WILLIAM R. BENNETT, III, Esq.
On behalf of Mrs. Theresa Davidson
(Next of kin to Captain Michael Davidson)

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P R O C E E D I N G S

(9:03 a.m.)

1
2
3 CAPT NEUBAUER: Good morning. This hearing will come to
4 order. Today is February 13th and the time is 9:03 a.m. We're
5 continuing at the Prime F. Osborn Convention Center in
6 Jacksonville, Florida.

7 I'm Captain Jason Neubauer of the United States Coast Guard,
8 Chief of the Coast Guard Office of Investigation and Analysis in
9 Washington, D.C. I'm the Chairman of the Coast Guard Marine Board
10 of Investigation and the presiding officer over these proceedings.

11 The Commandant of the Coast Guard has convened this Board
12 under the authority of Title 46 United States Code Section 6301
13 and Title 46 Code of Federal Regulations Part 4 to investigate the
14 circumstances surrounding the sinking of the SS *El Faro* with the
15 loss of 33 lives on October 1st, 2015, while transiting east of
16 the Bahamas.

17 I'm conducting this investigation under the rules in Title 46
18 C.F.R. Part 4. The investigation will determine as closely as
19 possible the factors that contributed to the incident so the
20 proper recommendations for the prevention of similar casualties
21 may be made; whether there is evidence of any act of misconduct,
22 inattention to duty, negligence or willful violation of the law on
23 the part of any credentialed merchant mariners contributed to the
24 casualty; and whether there's evidence that any Coast Guard
25 personnel or any representative or employee of any other

1 government agency or any other person caused or contributed to the
2 casualty.

3 I have previously determined that the following organizations
4 or individuals are parties of interest to this investigation:
5 TOTE services, represented by Mr. Luke Reid; ABS, represented by
6 Mr. Gerard White; Herbert Engineering Corporation, represented by
7 Mr. Spencer Shilling; and Mrs. Theresa Davidson as next of kin for
8 Captain Michael Davidson, master of the SS *El Faro*, represented by
9 Mr. William Bennett.

10 These parties have a direct interest in the investigation and
11 have demonstrated the potential for contributing significantly to
12 the completeness of the investigation, or otherwise enhancing the
13 safety of life and property at sea, through participation as party
14 in interest. All parties in interest have a statutory right to
15 employ counsel to represent them, to cross-examine witnesses, and
16 to have witnesses called on their behalf.

17 I will examine all witnesses at this formal hearing under
18 oath or affirmation. And witnesses will be subject to federal
19 laws and penalties governing false official statements. Witnesses
20 who are not parties in interest may be advised by their counsel
21 concerning their rights; however, such counsel may not examine or
22 cross-examine other witnesses or otherwise participate.

23 These proceedings are open to the public and to the media. I
24 ask for the cooperation of all persons present to minimize any
25 disruptive influence on the proceedings in general and on the

1 witnesses in particular. Please turn your cell phones or other
2 electronic devices off for the sound or vibrate mode. Photography
3 will be permitted during this opening statement and during recess
4 periods.

5 The members of the press are welcome and an area has been set
6 aside for your use during the proceedings. The news media may
7 question witnesses concerning the testimony that they have given
8 after I have released them from these proceedings. I ask that
9 such interviews be conducted outside of this room.

10 Since the date of the casualty, the National Transportation
11 Safety Board (NTSB) and the Coast Guard have conducted substantial
12 evidence collection activities, and some of that previously
13 collected evidence will be considered during these hearings.
14 Should any person have or believe he or she has information not
15 brought forward but which might be of direct significance, that
16 person is urged to bring that information to my attention by
17 emailing elfaro@uscg.mil.

18 The Coast Guard relies on strong partnerships to execute its
19 missions, and this Marine Board of Investigation is no exception.
20 The NTSB is providing representatives for this hearing. Mr. Brian
21 Young, also seated to my left, is the Investigator in Charge for
22 the NTSB investigation.

23 Mr. Young, would you like to make a brief statement?

24 MR. YOUNG: Yes. Good morning, Captain. Good morning, all.
25 I'm Brian Young, the Investigator in Charge for the National

1 Transportation Safety Board's investigation of this accident. The
2 NTSB has joined this hearing to avoid duplicating the development
3 of facts. Nevertheless, we wish to point out that this does not
4 preclude the NTSB from developing additional information
5 separately from this proceeding, if that becomes necessary.

6 At the conclusion of these hearings, the NTSB will analyze
7 the facts of this accident and determine the probable cause
8 independently of the Coast Guard, issue a report from the NTSB's
9 findings and, if appropriate, issue recommendations to correct
10 safety problems discovered during the investigation.

11 Thank you.

12 CAPT NEUBAUER: Thank you, Mr. Young.

13 We will now call our first witness of the day, Mr. Lee
14 Peterson, TOTE Services, Director of Safety and Services.

15 LCDR YEMMA: Please raise your right hand, sir.

16 (Witness sworn.)

17 LCDR YEMMA: Thank you, sir. You can be seated. I'm sorry.

18 Mr. Peterson, we've gotten your background during your prior
19 testimony, but just to confirm, are you still the director of the
20 safety and services in TOTE Services?

21 THE WITNESS: No, I've moved over to TOTE Maritime Puerto
22 Rico. I'm now the director of operations.

23 LCDR YEMMA: Okay. Can you please describe for the Board
24 some of your general responsibilities in that position?

25 THE WITNESS: Mainly dealing with the terminal operations in

1 Jacksonville and down in San Juan.

2 LCDR YEMMA: Thank you, sir. Mr. Fawcett is going to have
3 some questions for you now.

4 (Whereupon,

5 LEE PETERSON

6 was called as a witness and, having been duly sworn, was examined
7 and testified as follows:)

8 BY MR. FAWCETT:

9 Q. Good morning, Mr. Peterson.

10 A. Good morning, Mr. Fawcett.

11 Q. So I'm going to ask you some safety related questions, and if
12 you'd like to take a break at any time, please let me know.

13 The first question is, at the time of the accident you were
14 the director of safety and services for TOTE Services,
15 Incorporated; is that correct?

16 A. Yes, I was the director of safety and marine operations.

17 Q. At the time, could you tell me how TOTE identified risks to
18 its shipboard operations?

19 A. Well, it was a process where we had checklists made up.
20 There was operational procedures that the crews would go through
21 to evaluate what the risks were with any operations.

22 Q. So TOTE has the ultimate responsibility to ensure that its
23 operations and the operation of its assets are in full compliance
24 with regulations, rules, and the safety management system; is that
25 correct?

1 A. Yes, sir.

2 Q. Have you had the opportunity to review the VDR transcript as
3 well as talk to the --

4 MR. FAWCETT: For the benefit of the public, the parties have
5 an opportunity, under the NTSB system, to have a representative at
6 the audio transcript production operation, where the party has the
7 opportunity to have someone sit there and listen to the entire
8 transcript.

9 BY MR. FAWCETT:

10 Q. Have you had an opportunity to review the transcript as well
11 as talk to that representative?

12 A. Yes, I have.

13 Q. So looking at that transcript, both the *El Faro* and the *El*
14 *Yunque* were operating at, more or less, full steam for the
15 significant portion of the voyage. The *El Faro's* intention was to
16 cross behind the storm. The *El Yunque* was to cross ahead of the
17 storm. Looking at the transcript in detail, do you see any point
18 on the transcript where Captain Davidson ordered a reduction in
19 the speed?

20 A. No, sir.

21 Q. Looking at the evidence that we have analyzed, which is
22 comprehensive in nature, the *El Faro* had a boiler survey that
23 identified some information that needed corrected. There was a
24 stern tube bearing issue. There was an ABS surveyor who tested
25 the boiler component to less than full operating pressure. Were

1 you aware of that at the time of the accident?

2 A. No, I was not in the engineering side of the operation at the
3 time.

4 Q. In your role as safety -- director of safety, were you aware
5 of it?

6 A. Not that I recall.

7 Q. Do you know if TOTE imposed any operating restrictions on the
8 mechanical systems aboard *El Faro* on the basis of those issues
9 which I have just talked about?

10 A. No, sir.

11 Q. So at the time of the accident, you had how many people
12 working for you in the safety department?

13 A. On the safety side, we had two full time with the safety and
14 a couple other people that spend most of their time in safety.

15 Q. Who would be those other people? I know that Ms. Young,
16 Ms. Cadorette-Young, she was responsible for some aspects of
17 safety. Who were the other people?

18 A. Well, beyond Captain Lawrence and Patty Finsterbusch, which
19 were full time, Cadorette-Young, and then Karen Peterson.

20 Q. So would you talk about what the fleet responsibility was
21 they had for those four people, two full-time people? How many
22 vessels, where were they, and what were they doing?

23 A. Out of 24 vessels total in regular operation, the TOTE
24 vessels and the yard vessels, there are also a number of MARAD
25 ships, which were generally laid up most of the time.

1 Q. We discussed in previous hearings, in the organizational
2 chart, there was a safety coordinator position that was marked as
3 "to be determined." Were you involved in discussions about that
4 position and hiring someone to fill the position?

5 A. Yeah, I was.

6 Q. Can you talk about that discussion?

7 A. Well, we were actually looking for somebody to help out with
8 the safety department, just put some more feet on the ground with
9 them.

10 Q. So leading up to the accident time frame, there was a person
11 who interviewed for the position, was waiting for notification as
12 to whether or not she received the job, and at the time, the
13 president of the company decided not to fill that position; is
14 that correct?

15 A. That's my understanding.

16 Q. So we've seen in this hearing STCW records, STCW records
17 relating to the management of fatigue, which require a certain
18 rest area or rest periods. And just to be clear, the rest periods
19 are timed to when the individual was not supposed to be employed
20 on a vessel. So some of those records were lost when the *El Faro*
21 sank, they are not complete. Who within TOTE is ultimately
22 responsible to ensure that STCW rest hours are in compliance with
23 regulations?

24 A. Well, those would be part of the audit process when the
25 auditors do go on board, taking out those records and making sure

1 they're adhered to.

2 Q. Do you know if they were examined in an audit period in 2015?

3 A. I'm not an auditor and I never got involved in those
4 particular audits.

5 Q. Would you see audit reports so that, as director of safety,
6 that you were assured that the mariners were in compliance?

7 A. The reports would come to the office. I don't know that they
8 looked at that particular one. That's something that the captain
9 also is going to look at and make sure that his crew is in
10 accordance.

11 Q. So in September of 2015, the last port mate to step aboard
12 the *El Faro* was on the 1st of September in Jacksonville. For the
13 rest of the period of the vessel's attendance to Jacksonville,
14 there were no port mates. Were you aware of that?

15 A. Not offhand, no.

16 Q. So to revisit the audit process, there is no way for TOTE to
17 know in real time if they are -- at the time of the accident, if
18 the ships are in compliance with the requirements for rest?

19 A. Well, yeah, we can go on the ships at any time and check it
20 out and it comes back to us, Mr. Fawcett. The vessels are
21 watching that very carefully and they'll let us know if they've
22 got some issues with those rest hours. We've had occasions where
23 -- well, we've had occasions where the ship has to sail, but we
24 take that into account when the guys are figuring out what our
25 sailing times are. We've had occasions where sailing times have

1 changed, and that's one of the first questions that goes out to
2 the ship, how does this affect your rest hours? Is everyone in
3 compliance?

4 Q. So I don't want to take up a lot of time here, but you were
5 in the audience, I believe, when we discussed the STCW records for
6 the third mate, Mr. Berrios, as well as Mr. Riehm; is that
7 correct?

8 A. Correct.

9 Q. I have sampled only a small portion of the available STCW
10 records, and in that limited sampling I found three examples of
11 noncompliance with the rest areas; particularly, Mr. Berrios was
12 marginal in that he was a half-hour short of the required rest
13 time. Mr. Riehm, on the 1st of September, even with the port
14 mate, only had 4 hours of rest in the 12 hours prior to departure.

15 I'd like to turn your attention to Coast Guard Exhibit 266,
16 page 66. This is a conversation at sea that takes place on the
17 morning of September 30th. The third mate is talking to his AB.

18 Time 08:53. The brackets indicate words that the team
19 couldn't necessarily agree on but think that were said.

20 "(he) showed up after the fact, you know these, you know what
21 -- what's changed is. I mean granted obviously I missed something
22 but man I could not (expletive) keep up. I had a GUDE helping me.
23 He couldn't keep up. I was helping him plug in and I didn't have
24 time to get all the temps down and the ramp came off everything
25 just happened in quick succession for a couple of reasons -- I

1 guess 5 hold didn't get finished up and until the last minute so
2 all the reefers that would have been already in and plugged in
3 there weren't there they all just came on at the end. Yeah, we
4 just had this perfect storm of" -- with an asterisk --
5 "(expletive) problems. We used to have a port mate and now we
6 don't. We have a guy from PORTUS, a longshoreman, now we don't."

7 So based on the routine and the contents of the transcript,
8 the third mate was expected at 17:30 to start duty, to stand an
9 effective sea watch. Looking at the contents of that now, do you
10 believe, based on your maritime background, that this mariner
11 could stand an effective watch and wouldn't be fatigued?

12 A. Well, you have to know what his situation was prior to that.
13 As he said, it was a perfect storm. Sometimes these things all
14 come together at the same time. But we'd have to look back and
15 see what his rest was prior to him coming on.

16 Q. And I used the term GUDE. Could you explain what that is?

17 A. Yeah, that's a general utility deck engine. We used to refer
18 to it as a wiper, but now it's called deck and engine side.

19 Q. So looking at the safety department, there's also someone
20 else that oversees safety, and that's the designated person
21 ashore. Do you think that a span of control of the designated
22 person ashore, where he is responsible for 24 vessels, is the
23 appropriate span of control for a designated person ashore?

24 A. You know, I really don't have any reference for that. As far
25 as what's known with companies and as far as how many ships

1 they'll handle, it's working. That's kind of a subjective.

2 Q. On the morning of the accident, Captain Davidson was
3 frustrated, as I interpret it, by the question and answers he got
4 from the emergency response telephone number. The ship had an oil
5 spill on the 1st of September in 2015, which I will characterize
6 was a minor spill. They reported it properly to the Coast Guard.
7 But Captain Davidson had the same problems with the emergency call
8 center. Captain Lawrence reached out to the call center to try to
9 rectify the problem; it was never rectified.

10 Can you explain why that might not have happened?

11 A. I know that this was something that Captain Lawrence was
12 working on a lot. He realized that they weren't reacting as quick
13 as we would've liked and we were being proactive trying to rectify
14 that. I don't have an answer as far as your particular question.

15 Q. So on the load-out bay, Mr. Rodriguez took a photograph of
16 the *El Faro* listing inboard towards the dock, at what we've
17 calculated to be approximately 4.3 degrees. Have you been able to
18 determine why that happened? I know there was a mention about the
19 way cargo was either being placed on the ship or not. Leading up
20 to the time of the accident, did you know about that?

21 A. I believe I had seen it pass by, but that's -- I mean, this
22 was covered on the other MBIs. It was just the way the cargo was
23 being loaded and they immediately got on it and corrected it in
24 short order.

25 Q. Based on the information that you have at your disposal now,

1 do you know if Captain Davidson or a ship's officer ordered the
2 cargo to be stopped?

3 A. I believe that was Mr. Rodriguez that had them stop.

4 Q. If you'll turn your attention to Coast Guard Exhibit 286,
5 page 1, this is an internal audit conducted by TOTE Services, Inc.
6 on the SS *El Morro*, September 3rd, 2013, Section 7: The master's
7 standing order folder, it was in good order and signed. The
8 master's standing order had not been updated to incorporate a new
9 policy regarding notification during cargo operations when lists
10 and trim limits have been reached.

11 Could you talk about that policy?

12 A. What are you looking for as far as talking about the policy?

13 Q. Is there a TOTE policy for people to make notifications when
14 trim and list conditions have been reached?

15 A. This one is also referring to, as I would take it, that they
16 would notify the master if they reached these limits.

17 Q. But it speaks to a policy.

18 A. Then yes, there must be a policy in there.

19 Q. Could we ask TOTE to try to provide that policy, please?

20 A. We'll look into it.

21 Q. Looking at the *El Yunque* -- and the reason I look at the *El*
22 *Yunque* is to try to find out whether the *El Faro*'s situation was
23 related directly to the *El Faro* or does it relate directly to the
24 operation of both ships and how TOTE operated those ships. So I'm
25 trying to provide a comparison.

1 So the *El Yunque* got ready to depart San Juan on the morning
2 of September 29th. Were you or was TOTE aware of any mechanical
3 conditions aboard the ship that may impact the voyage?

4 A. Not that I recall right now.

5 MR. HALBERT: One second, please.

6 (Pause.)

7 BY MR. FAWCETT:

8 Q. And looking into the *El Yunque's* voyage, other than the new
9 reports, there were no communications about the details of the
10 vessel's voyage plan. Are you aware of that?

11 A. The voyage plan was usually done on the ship, between the
12 engineering room and between the deck officers.

13 Q. But when the *El Yunque* sailed from San Juan on the morning of
14 the 28th, the *El Faro*, in the transcript, speculates if they will
15 take the Old Bahama Channel route. My question is, did TOTE know
16 the route that the *El Yunque* would take as they departed San Juan
17 on the morning of the 29th?

18 A. Well, yeah, the crew did know. I mean, that's --

19 Q. Sir, I'm asking if TOTE knew the route.

20 A. TOTE is the -- I mean, the crew does -- is part of TOTE.

21 MR. FAWCETT: Thank you, sir. That completes my safety
22 questions.

23 BY CAPT NEUBAUER:

24 Q. Good morning, Mr. Peterson.

25 A. Good morning, sir.

1 Q. I just have a couple follow-up questions to Mr. Fawcett's
2 line. Do you know why the safety coordinator position wasn't
3 filled?

4 A. I can't say. I know we were actively looking for applicants.

5 Q. You can't give me reasons why the applicant that was being
6 considered was not chosen?

7 A. I really wasn't in the loop on that one. That would be
8 something maybe Captain Lawrence could answer.

9 Q. Yes, sir. At the time of the accident voyage, did TOTE have
10 a policy in place that the *El Faro's* DPA would be readily
11 available at all times for a phone call?

12 A. Yes, sir.

13 Q. If the DPA on duty was traveling by commercial airlines,
14 would you consider that a violation of TOTE's company policy?

15 A. Well, it's a practicality of life, but there were other
16 people that could take those calls, too.

17 Q. So there were other people monitoring, actively monitoring,
18 the DPA line; is that right?

19 A. No, sir, there was not.

20 MR. HALBERT: A moment, please.

21 (Pause.)

22 THE WITNESS: Just to clarify. So if someone calls in and
23 they don't get the DPA, there's a succession of line above the
24 next people who they will call, if you're calling in to the call
25 center. If John doesn't answer, they'll go work on down the line,

1 as far as who they can get a hold of.

2 BY CAPT NEUBAUER:

3 Q. Can you recall who would've been the second person in line on
4 the day of the accident voyage?

5 A. I'd have to look at the list.

6 CAPT NEUBAUER: At this time I'd like to go to Commander Odom
7 for questioning.

8 CDR ODOM: Thank you, Captain.

9 Mr. Peterson, good morning.

10 THE WITNESS: Good morning.

11 CDR ODOM: Today I have a variety of questions specific to
12 the *El Faro's* lube oil system and just a few about operations.
13 And additionally, Commander Venturella will give an analysis of
14 the lube oil sump and different angles of the lists, and ask some
15 questions in regards to his presentation after I'm complete with
16 my questions.

17 I have quite a few questions, so if you need a break or would
18 like to take a break, this would be a good time to recommend that.
19 Do you want to continue on or do you want a break?

20 THE WITNESS: I would like a break right now. Thank you.

21 CAPT NEUBAUER: The hearing will now recess and reconvene at
22 9:45.

23 (Off the record at 9:34 a.m.)

24 (On the record at 9:45 a.m.)

25 CAPT NEUBAUER: The hearing is now back in session.

1 Mr. Peterson, we're going to continue on with the line from
2 Commander Odom at this time.

3 CDR ODOM: Thank you, Captain.

4 BY CDR ODOM:

5 Q. So to begin, I would like to start with some questions and
6 comments made by Chief Gay during his testimony last week and just
7 follow-up with a couple of statements he made to establish your
8 involvement and historical involvement with the engineering plant
9 on the *El Faro*. And just to verify, you were present for
10 Chief Gay's testimony, correct?

11 A. I was, yes.

12 Q. Okay. And I'm referring to some comments made by Chief Gay.
13 He had stated that during his time as the chief engineer on the *El*
14 *Faro*, you served as his port engineer; is that correct?

15 A. That's correct.

16 Q. And also he said -- he mentioned statements that alluded that
17 you served as some sort of a technical representative for some of
18 the engineering equipment or the plant; is that correct?

19 A. That's correct. I started my relationship with Sea Star as
20 their turbine representative back in 2000 with McDonnell and
21 Peterson.

22 Q. And during his testimony, he said that you would, as a port
23 engineer, sometimes assist with voyage planning. Can you tell us
24 what he meant by that and the level of participation that you
25 would have in a voyage plan?

1 A. Sure. What Mark was referring to is I would usually meet
2 with the captain and the chief engineer and just talk about what's
3 going to be happening on the voyage as far as any repairs plus
4 anything that's out of the usual, just to have an idea of what's
5 happening on the ship. Not to be confused with actual -- what the
6 deck side are doing as far as their actual routes go. It was more
7 just the maintenance side of what's happening on there.

8 Q. And does that same practice persist today with port
9 engineers?

10 A. I assume so, but you'd have to ask the port engineers.

11 Q. And during that time as a port engineer, I understand they
12 had port mates. But as a port engineer, did you have any duties
13 to ensure that the survival and lifesaving equipment were properly
14 serviced and in good order?

15 A. Nothing personally going around. That was left to the crews
16 to go through and do their regular inspections as well as, you
17 know, the ABS inspections and regulatory.

18 Q. Did you or have you ever made voyages on the *El Faro*?

19 A. Yes, I've made quite a few, actually.

20 Q. And what was the most recent voyage you made?

21 A. I couldn't speak to that. I'd have to go back and look at my
22 calendars, I guess, to see when it was.

23 Q. And while on the voyages, did you attend or participate in
24 any of the safety meetings on board?

25 A. I believe there were a couple on some of those trips when I

1 -- but I really don't have a good recollection of those.

2 Q. And what about drills, did you participate in fire and
3 abandon ship drills?

4 A. Yes, as a supernumerary, you'd have to attend all the
5 fireboat drills.

6 Q. And during those drills, can you give us a quick rundown on
7 what you thought of them? Were they well run? Was the
8 proficiency there? Did the crew understand the drills and did
9 they ever -- did you ever see any discussion about the launching
10 of the life rafts during the drill or how to launch them?

11 A. I'll be honest. I've been through hundreds of drills in my
12 career. The specifics of these, I don't remember there being
13 anything outstanding that got my attention. And I've seen a lot
14 of different demonstrations on lifeboat launching, but I can't
15 speak specifically just to the *El Faro*.

16 Q. Okay. So I'd like to talk about the lube oil system on board
17 the *El Faro*. And just to verify, Mr. Fawcett asked you have you
18 done a complete and thorough review of the VDR transcript with
19 regards to the engineering comments that were made on the VDR?

20 A. I have read through it, yes.

21 Q. In the VDR, comments made by the supernumerary, which is on
22 Exhibit 266, page 399, if you want to see it, and also in Chief
23 Gay's testimony, it would appear the *El Faro's* lube oil system
24 would get an intermittent low lube oil alarm as a result of the
25 pitching and rolling of the vessel in heavy weather. Can you

1 further elaborate, as a technical expert, on exactly what causes
2 this? And also be specific as to what the effect on the plant is
3 when the low lube is intermittently activated.

4 A. The alarm itself wouldn't affect plant operation. You're
5 still going to have enough pressure if it's intermittent, and
6 that's what we're talking about. You'd still have enough pressure
7 to the control system and to the bearings to keep your turbo
8 generators or your turbines running. The worry for the
9 engineering staff is this is not something that normally happens,
10 so it's going to get their attention as to why it's happening.

11 And I think we'll probably get into it later but, you know,
12 there's going to be a list, a heel that is definitely going to
13 affect this more than normal operations.

14 After going into that sump tank down in Brownsville on the *El*
15 *Yunque*, it really brought back home just how baffled those tanks
16 are, how many compartments there are in those tanks. And we've
17 had a lot of interviews with different chiefs in both the Alaska
18 trade and Puerto Rico trade, that they never had any issues in
19 rough weather, and you can see why. With that degree of baffling,
20 it's basically like having numerous small tanks.

21 But if you are heeled over -- whoops, excuse me. I don't
22 know if you want me to get into that, yet, but if you are heeled
23 over, it's going to take away that advantage you have with that
24 baffling.

25 Q. We'll definitely get into that in more detail later,

1 especially with Commander Venturella. And just to further drill
2 down a little bit on that low lube oil alarm, would it initiate
3 any other operation in the engine room with regards to the boiler
4 automation or are they completely separate systems?

5 A. Those are completely separate.

6 Q. From the design perspective, the system is designed to
7 sustain a 15-degree list, a static list, without losing suction.
8 That's the rule that is required. Are you familiar with that
9 standard?

10 A. I am.

11 Q. And do you feel like, or do you know if the engineers were
12 aware of the risk that a 15-degree list would pose specific to the
13 lube oil system?

14 A. I don't know that they'd be aware of it.

15 Q. Now, you knew the chief engineer on board the *El Faro*; is
16 that correct?

17 A. I did.

18 Q. Did you ever have any discussion with him about the risk of a
19 list to the lube oil system? Do you think that he was aware of
20 the 15-degree rule?

21 A. No, we never had that specific discussion.

22 Q. Chief Gay had indicated that there was an inclinometer.

23 MR. HALBERT: One moment, please.

24 CAPT NEUBAUER: Commander Odom, stand by.

25 MR. HALBERT: One moment, please.

1 (Pause.)

2 THE WITNESS: I think I only answered part of your question,
3 Commander. We never did have the discussion about the lube oil
4 system, whether a list, how it would affect it. Whether he was
5 aware of it or not, I couldn't say.

6 BY CDR ODOM:

7 Q. Thank you. So going back, Chief Gay had indicated that there
8 was an inclinometer in the engine room and it was of the bubble
9 type and he had recalled that it only read to 15 degrees. Is that
10 what you recall on the *El Faro*?

11 A. I don't recall. What I usually had seen on ships is actually
12 two different inclinometers, one that will handle the small lists,
13 which would be up to the 15-degree, and then another one that may
14 go over to like 45. But I don't specifically remember what was on
15 the *El Faro*.

16 Q. And Chief Gay also stated that when he sailed on the *El Faro*,
17 the standard for the sump level was between 27 inches and 31
18 inches. Do you recall that in your time as a port engineer
19 serving him, that that was the standard for the sump pump?

20 A. I can only state, you know, what the standard is in the
21 tables in the manual, which called for a 27-inch, I think, was the
22 norm for the midpoint.

23 Q. But you don't recall anything about what levels they
24 maintained during that period?

25 A. Not specifically, no.

1 Q. And Chief Gay was also very specific in that sailing in heavy
2 weather was a reason, as the chief engineer of the *El Faro*, that
3 he would use to raise the sump level to the upper limits of the
4 operating range to help protect the equipment.

5 Do you still think that was a prudent thing to do or was that
6 something that was routinely discussed?

7 A. Not routinely discussed. I hadn't heard that from any other
8 engineers working on our ships.

9 Q. Is that generally something you would expect of a chief
10 engineer to know to do something like that, or is that of a more
11 experienced chief engineer?

12 A. Well, this was a very special situation. Normally you
13 wouldn't -- it's not something that's necessary. When you have a
14 permanent heel-over like that, though, this is not a situation
15 that they've dealt with before.

16 Q. He talked about the operating range briefly. We know the
17 operating range from the sump from the *El Yunque* machinery manual
18 is 18 inches or 724 gallons to 33 inches or 2,020 gallons. From
19 reviewing the *El Faro* machinery logs, it would appear the lube oil
20 sump level would fluctuate from between 23 inches to 28 inches,
21 but was maintained in a pretty tight range, in that range. Can
22 you discuss what or who determines the range the vessel would
23 normally operate in?

24 A. Those are just the manufacturer's recommendations when the
25 ship comes out.

1 Q. Who was told -- I mean, who would make the decision on where
2 the lube oil sump level is going to be maintained at for TOTE?

3 A. Well, there's nobody specific shore side that's going to
4 maintain that. That's a vessel operations decision.

5 Q. So the chief engineer would generally be the determining
6 person that would make that decision?

7 A. Based on the manufacturer's recommendations. Yeah, you're
8 going to have a deviation and you're not going to -- there's no
9 way you're going to keep it at, you know, exactly 27 inches all
10 the time. So they may have had something in place where they say
11 if it gets down to 24 we'll take it back up to 28 or something
12 like that.

13 Q. Were the sump levels ever monitored by anybody in management
14 shore side, where if a chief engineer was operating at the lower
15 end of the range, at what point would that become a concern for
16 management, the sump level?

17 A. It's not something management would normally get involved in.
18 And you have to remember that it's not just one man looking at
19 these. You've got the other chief, you've got the first and the
20 operating engineers. There's a lot of eyes on that level.

21 Q. Generally speaking, you know, when a chief engineer or the
22 engineers make the decision that needed to add lube oil to the
23 sump, is it something that they arbitrarily do at a certain level
24 or is there any guidance that is provided to them?

25 A. That's something usually that the guys on the ship have it

1 figured out. Like I say, the minute it hits that 24-inch, let's
2 say, they'll have the third take it back up to 28, you know, just
3 -- I don't know that there's a hard and fast rule on that.

4 Q. As stated in the NTSB factual report that was released to the
5 public, the lube oil section discusses changes made to the
6 original design specifications for the operating level of the lube
7 oil sump. And to be specific, it recommended that the operating
8 capacity would increase from 900 gallons to 1,426 gallons, and the
9 low lube oil capacity of the sump would decrease from 750 gallons
10 to 724 gallons, and the sump overall design capacity would
11 decrease from 4,250 gallons to 2,870 gallons. Are you aware of
12 those changes?

13 A. Are you talking about the changes that were shown in the
14 original manufacturing drawings?

15 Q. That is correct.

16 A. Yeah, I did see that. I don't know what the basis was for
17 that. That was back in the original design.

18 Q. Do you know if they actually changed the sump capacities or
19 did they just change parameters of operation?

20 A. I can't speak to that. I don't know.

21 Q. Okay. Did you review the *El Faro* engineering logs that were
22 available?

23 A. I reviewed a few of them. I didn't go through all of them.

24 Q. And in your review of the engineering logs -- let me ask that
25 question. How much did you review; how far back did you go

1 looking at them?

2 A. You know, as different questions came up, I did go back like
3 a year or two, but not over the entire log.

4 Q. In your review of the log, did you see anything or any
5 anomalies that concerned you, or anything that seemed odd to you,
6 or everything seemed normal operations?

7 A. I don't remember seeing anything out of the ordinary.

8 Q. I'd like you to bring up Exhibit 266, and starting at the
9 page -- at the top of page 381. And in this section of the VDR
10 there's a conversation with the chief mate and the captain, and
11 what seems pretty clear to me, an electronic telephone
12 conversation with the chief engineer on the electric telephone.

13 They go through. The chief mate on the electronic telephone
14 says "Bridge. Chief mate."

15 The chief mate says "Yes."

16 The chief mate says "Okay."

17 The chief mate says -- this is a one-sided telephone
18 conversation, obviously -- "we will get the captain. okay. I
19 understand you. 'kay. Understand you. Alright."

20 "Captain -- chief mate. The chief engineer just called and"
21 -- parenthetically it says -- "(them/they) called back again.
22 something about the list and oil levels."

23 Going on down to page 382, continuing on, there's a couple of
24 rudder commands and he says "All right. That was the chief. That
25 was the chief. Down in the engine room? Yes, sir."

1 And the electronic telephone conversation starts again with
2 the captain, and the captain says, "Hey, second, Captain here. Is
3 the chief around?"

4 The captain says, "Okay. I'm on the bridge."

5 There's a pause. More conversation about steering between
6 the captain and the chief mate. And then their conversation picks
7 up again at the bottom of page 383.

8 It says "Captain. How are you? You want us to take the list
9 off a little bit? Okay. That's good."

10 The chief mate says a couple of things, but then the captain
11 says, at 04:44:25 and 23 seconds, "All right. Shut her down."

12 Then the captain is having a conversations with what is to be
13 on the left side of the page, with the chief mate, where he says,
14 "Just the list. The sumps are actin' up. To be expected. Yeah."

15 The chief mate says, "Yeah the oil sumps. I understand."
16 And then they go into some rudder commands.

17 Going back to where he says "All right. Shut her down," what
18 do you think they were discussing in this conversation and what
19 would you be shutting down?

20 A. Commander, I've looked at that one right there and really
21 tried to figure out what the heck it'd be and I haven't come up
22 with a good answer, you know, whether it would be ballast, shut
23 down ballast, shut down -- they're also talking steering. Are
24 they talking about something on the steering system? But I don't
25 have a good answer for you.

1 CAPT NEUBAUER: Commander Odom, I just want to make a note
2 for the record that actually the readings of the electronic
3 telephone, there are likely conversations coming back from the
4 engine room that we are not able to -- that we don't have on the
5 record. So just to explain what you're reading as you go down.

6 CDR ODOM: Yes, sir, it's a one-sided conversation.

7 THE WITNESS: I'm sorry. Yeah. And it also states that --
8 he's on -- he's at the phone, but is he talking to a person on the
9 phone or is he talking to someone on the bridge, even though he's
10 over at the phone? So --

11 BY CDR ODOM:

12 Q. I understand that. I mean, it would appear, from the reading
13 of the VDR, that he's talking to the chief engineer in the engine
14 room on the electronic telephone. Did you listen to the VDR?

15 A. No, I didn't have the opportunity.

16 Q. Okay. So what else -- I mean, you were talking about the
17 bilge and ballast system. In my review of this section of the
18 transcript, there's nothing previous in this to indicate that they
19 were doing any ballast operations or running anything, and they're
20 specifically talking about the list and the lube oil sumps are
21 acting up. What else would be affected by a list or the lube oil
22 that they might've been discussing shutting down the suction?

23 A. Like I said, Commander, I've really wracked myself with this
24 one and I just haven't come up with a good answer of what else
25 they could be shutting down.

1 Q. What do you think they were shutting down?

2 A. Again, I really haven't come up with a good answer or any
3 answer, to be honest with you.

4 Q. If they were doing a voluntary shutdown in this plant, of the
5 main, what would be the normal operating procedure to shut down
6 the main, and would they be isolating the gravity tank to hold the
7 contents of the lube oil in the gravity tank and stop? When
8 you're shutting down the main, would they close the valves off to
9 hold the contents in the gravity tank and keep them from dumping
10 into the sump?

11 A. If you were going through a regular planned shutdown of your
12 plant where you wanted to shut down the lube oil system -- now
13 normally, even when they're in port they leave the lube oil system
14 running all the time. It's not something that you'd normally shut
15 down. But if you were going to shut it down maybe as a
16 maintenance plan or you were going to a shipyard or something like
17 that, they would usually shut the drop valve, which is what allows
18 oil to come down from the gravity tank down to the main engine.

19 It's not something, though, that they would have to do if
20 they had -- you know, if they had an emergency where they needed
21 to shut the plant down or shut the main engine down. But you also
22 have to be guaranteed, unless your pumps are still running, that
23 you have -- well, you're not going to have your pumps running, but
24 you would have to make sure that you've got oil supply to your
25 bearings. So you're going to have your shaft stopped before that.

1 So in this situation, I wouldn't think they'd be looking to shut
2 the drop valve.

3 Q. So they can shut the main down and stop the steam, stop the
4 main and just keep the lube oil running. But if they were having
5 a problem with a list and the sumps were acting up, would they be
6 in that mode of trying to protect the contents of the gravity tank
7 and possibly shut down the lube oil system?

8 A. Again, you'd have to make sure that your shaft is stopped
9 before you're going to commit to shutting off your gravity tank
10 supply. You know, if -- I'm just -- I really can't picture a
11 situation where they'd want to shut down and maintain that oil up
12 there. If anything, in this situation, now you've got a list on a
13 ship and, say, 15 degrees, so you're hung over.

14 Your bell-mouth could be exposed, your bell-mouth being the
15 suction to the pump inside the tank, which is about 10 inches
16 above the bottom. So just so everyone knows that it's a 10-inch
17 pipe that comes down and it's called a bell-mouth because it bells
18 out to a larger diameter for the suction. If you're heeled over
19 enough to where you're sucking some air into that, you know,
20 you're not going to be shutting down your gravity tank; you're
21 going to be dependent on it at that point.

22 Q. Okay. Let's expand a little bit on that, what you just said.
23 With the pump, displacement of pumps, if the suction in the sump
24 is breaking the surface of the oil, to sloshing and sending some
25 air or sucking some air into that suction on the pumps, at what

1 point would it cause the pumps to fail or lose their prime? Is it
2 an all-or-nothing type of thing? Would a little bit of air cause
3 them to lose their prime? Or can you drill down on that a little
4 bit for us and explain that to us?

5 A. In my experience, it's kind of case by case. There are times
6 when you can keep grabbing oil, but that would have to be that
7 there's some oil there. Once you're to a point where you start
8 sucking air into that bell-mouth, unless you list back again and
9 grab another piece of oil to suck up into that pump, yeah, you're
10 going to lose suction on that pump. You're going to have air --
11 because these positive displacement, these particular screw pumps,
12 they will pump a little bit of air, but not if you're -- if you've
13 got a lot of air in them. And if you lose oil on your seals,
14 you're going to lose that -- you're more likely to start pulling
15 air in through your seals, also.

16 Q. And if you lose the seals, can you pull enough air in through
17 the seal to cause the pump to lose prime completely?

18 A. Yeah, you could.

19 Q. So on the weather conditions that the *El Faro* was in or
20 entering, do you think a higher lube oil sump operating level
21 going into the weather would've made any difference in the ability
22 of the system to maintain suction?

23 A. Well, looking back, yeah, I think that more oil in the system
24 would've helped them out. There is a point where you have too
25 much oil in your sump, though, in your bull gear. It hits the

1 surface or even the windage on the bull gear starts churning up
2 the oil and then you do run a risk of the oil foaming and you run
3 into the same problem, you can't pump foam. Yeah, looking back
4 and knowing what we know now, in my mind, they very well were
5 adding oil to that sump. I have every confidence that that's what
6 they were doing at the time.

7 Q. And, of course, the conversation on the VDR of them adding
8 oil to the sump, would that be a reason to shut down the main, to
9 add oil to the sump?

10 A. No, you can add oil to the sump while underway. That's not
11 an issue.

12 Q. Do you think there is anything else, other than the list,
13 that could've been causing the engineers to be misled into
14 believing the suction was lost, any other false indication from a
15 sensor or anything that would make them believe that they were
16 losing suction, but something else was going on with the plant?

17 A. If you were to reference the GE manual, there's a
18 troubleshooting section in that that will show you different
19 reasons why you could lose lube oil pressure, whether it's to the
20 bearings or the controls or wherever. And there are other things.
21 There's the strainers. You could have a plugged strainer. You
22 could have a strainer that didn't have a lid that was on properly
23 so you were actually sucking air through that. Generally, as soon
24 as you shut down, though, you're going to get oil coming back up
25 through it.

1 Yeah, that would be -- you can go through that list, but it's
2 pretty much what these guys would be living day to day as far as
3 knowing what to look for. And if you look in that troubleshooting
4 list in the manual, these are experienced engineers that would've
5 had that on the top of their head.

6 Q. And Chief Gay said that he thought the lube oil pumps could
7 run for about 30 minutes or more without lubrication before they
8 would totally fail. Can you offer your opinion on the lube oil
9 pumps and their survivability without lube oil from the suction?

10 A. I don't have a number, but I think Mark is right. I mean,
11 eventually you're going to start destroying your pump by not
12 having any lubrication in there with the bearings and everything
13 inside. Timing-wise, that may be a good number, 30 minutes.

14 Q. And even without the lube oil system running and providing
15 the main with lube oil, the system can be operated by overriding
16 the steam valve with the hydraulic jacks or the leverage bar to
17 open up the main steam valve because steam is needed. If the
18 plant were operating in this fashion, what would have been the
19 consequences to the plant and would they have done this?

20 A. Usually, what we're all taught as engineers is that would be
21 something you would do if you've lost everything and you're at
22 risk of a collision or something like that, where you're going to
23 give a burst of steam on the plant to get you out of -- get you
24 maneuvered out of a dire situation.

25 Now, here we'd be looking at putting it on for a prolonged

1 period. If you don't have oil going to either the journal
2 bearings, which are held in -- so you depend on that oil film to
3 keep the parts, keep them from coming in contact -- you'll get a
4 few minutes without any ill effects, but not long. So you've got
5 the journal bearings, you've got the thrust bearings -- those
6 would probably be the first to fail -- and the gear meshes, those
7 are all dependent on that lube oil system for operation.

8 But yes, you can do it. As you said, you can go to the
9 hydraulic jacks or you can use the emergency bar to open up those
10 throttles and get steam on the engine. And that's probably what
11 they would've done. Once they lost lube oil pressure, you're
12 going to lose your control pressure. The same system provides the
13 operating medium for the throttles. So as soon as you lose your
14 pumps, you're going to lose that ability.

15 So you would be using the emergency bar or the hydraulics to
16 put the stern steam on to get that shaft stopped, and that's the
17 whole idea. That's why you get that feed. I've seen different
18 numbers and heard different numbers for the gravity tank, what the
19 feed is on that. In the book it says 8 minutes. Some of the
20 engineers say 12, but you've got a limited time to stop that
21 shaft.

22 Q. It's only 8 minutes that the book says that the gravity tank
23 is going to dump its content into that sump. It's your
24 understanding that the sump level, the amount of lube oil that
25 it's going to dump into that sump is over 3200 gallons; is that

1 correct?

2 A. Yeah, I believe that's the capacity of the gravity tank.

3 Q. And during that 8 minutes would it be normal or would it be
4 -- would the engineers in any way try to stop that if they
5 introduced the astern steam to stop the shaft before that 8
6 minutes was up? Would it be an action of them trying to preserve
7 the contents of the tank by closing the supply valve and holding
8 that, like we discussed before?

9 A. No, you're actually dependent on that oil dropping down and
10 keeping all your bearings lubricated. That's not something you'd
11 be concerned with.

12 And on the other side -- that's where I was going before, but
13 I lost track. Once you've got all that oil back down into the
14 sump, now you've raised your sump level up quite a bit. And
15 remember, they did get oil back on the system a second time and
16 that would've been -- in my mind, that would've been the reasoning
17 as to this. Now you've lifted your level up in your sump to above
18 that bell-mouth and you're able to get your pumps rolling again
19 and get oil on the system. The problem is, once you're adding
20 oil, you're going to put yourself back in that same situation.

21 Q. So with the conservative estimate that they have 25 inches in
22 the sump, which is roughly 1,255 gallons, and they dumped 3200
23 gallons into the sump, that brings us to a level of about over
24 4400 gallons in the sump.

25 Do you think that that puts them in a situation where they're

1 causing the foaming of the oil and that's presenting a problem at
2 that point with the bull gear?

3 A. No, I don't, because remember, as soon as you're -- as soon
4 as you're dependent on that gravity tank to provide your lube oil,
5 you're stopping your engine, so your bull gear is not spinning.
6 And then once you get your lube oil system going again, you're
7 depleting -- bringing that oil level back down again, and that
8 would be something that needs to be calculated.

9 Where would that put the oil level in that sump? I was
10 looking at some drawings and it seems like there was 42 inches, I
11 think, before you'd actually hit the bottom of the bull gear.
12 That was very rough, just looking at the foundation drawings. But
13 that was a very rough number as far as what that depth would have
14 to be before we hit the bull gear bottom.

15 And again, as I spoke before -- and I don't know the degree,
16 but you're going to have some windage in -- you're going to have a
17 lot of windage in there. This is a lot of spinning parts inside
18 that sump. So you can imagine there's going to be a lot of
19 localized windage of things that are going to start pushing that
20 oil away as it's getting closer to the bull gear and how much
21 effect that would have on foaming.

22 Q. Yes, sir. So in the situation where the gravity tank dumps
23 into the sump and they're running the lube oil system and trying
24 to get the main back on line, does all that oil have to return to
25 the gravity tank before they restart the main, and how long does

1 that take, if they do?

2 A. If I was in that situation, putting myself in that situation,
3 I wouldn't have worried about getting all of the oil back up into
4 that gravity tank before I started turning the engine over. It
5 doesn't mean you're going to put -- you know, get up to full speed
6 right away, but as soon as you got oil on the system, yeah, I'd
7 start rolling things over. I mean, you're going to give it a few
8 minutes to make sure that you've got enough oil on your system.
9 And as far as timing goes, Commander, I've done it, but I don't
10 recall how long it takes to fill that gravity tank back up again.

11 Q. Now, on the gravity tank there's a low lube oil alarm. Does
12 that have any effect on any of the automation on the engine room
13 or is that just an alarm?

14 A. There is a low lube oil alarm. It's a foot below the
15 overflow, but it's strictly an alarm notification. It has nothing
16 to do with the automation.

17 Q. I really haven't asked you any questions about the boiler,
18 but I'd like to give you an opportunity. Is there any reason that
19 you believe, from your review of the VDR, that the boilers ever
20 went off line or there were ever any issues with the boilers?

21 A. As I went through the VDR transcript, I really didn't get the
22 sense that there was a loss of the boilers. I know there were a
23 couple of references in there from the captain and, in my mind, it
24 was kind of a generic, the plant -- you know, they were going to
25 get -- he made reference to the boilers and in the same sentence

1 to lube oil, which have no relationship. And in the world of
2 those steam plants, it's very unusual to have a loss of
3 propulsion, and it's not usual, but it's not unheard of, to have
4 the boilers go offline with fuel oil, for whatever the reasons
5 are. So it may be just be more of a habit, boilers are back up.

6 But I did catch that and it was referenced a couple times,
7 but I really didn't get the sense that they'd lost -- because that
8 would've maybe meant that they had lost power if they lost both
9 boilers. There's a possibility they could've lost one boiler, but
10 I didn't get that sense from it, in my opinion.

11 Q. Chief Gay, during his testimony, made a comment about keeping
12 the boilers at a steady state in the conditions that the *El Faro*
13 was in, and that he would not have allowed the watch to blow soot.
14 Do you care to comment on the topic of blowing soot and if you
15 thought that was something they should've been doing or should not
16 have or if it would've had any effect on what happened?

17 A. In my mind, they were going to come up with a solution and be
18 on their way and they were going to still maintain their usual
19 routines, which included blowing tubes. And it's something that
20 you would want to -- you would want to maintain that schedule.
21 Given the circumstances, I don't know that it would've been a
22 priority, but I don't -- I'm not sure that there was anything
23 wrong with doing it at the time. That kind of surprised me, too.
24 It wasn't something that I would've expected.

25 Q. Mr. Peterson, based on your review of the VDR, would you care

1 to provide us with any opinion you might have as to what was
2 happening in the engine room and the challenges that led to the
3 loss of propulsion aboard the *El Faro*?

4 A. Commander, I don't think I have anything to add. I think
5 we've covered a lot of territory here.

6 CDR ODOM: Thank you very much, Mr. Peterson. At this time
7 I'd like to turn it over to Commander Venturella, who has some
8 questions he would like to ask, and again offer a recess if you
9 think you need it.

10 THE WITNESS: I would like to take a couple minutes.

11 CAPT NEUBAUER: The hearing will now recess and reconvene at
12 10:35.

13 (Off the record at 10:26 a.m.)

14 (On the record at 10:36 a.m.)

15 CAPT NEUBAUER: The hearing is now back in session. Before
16 the break, Commander Odom asked a question about blowing soot and
17 he's going to ask a follow-up question to clarify an issue.

18 BY CDR ODOM:

19 Q. Sir, you made a reference in our conversation about blowing
20 soot or blowing tubes and you said that they would want to keep a
21 schedule. In your reference to the schedule, were you speaking
22 about the schedule of the ship or the schedule of the engineers in
23 blowing soot?

24 A. No, I was referring to the blowing tubes, doing that on a
25 regular basis.

1 CDR ODOM: Thank you, sir. And at this time I'm going to
2 pass it back to Captain Neubauer.

3 CAPT NEUBAUER: Mr. Peterson, before Commander Venturella
4 begins, he's going to be referencing a computer modeling analysis
5 of the SS *El Faro's* lube oil system.

6 On January 26th, 2017, I had asked the Coast Guard Marine
7 Safety Center, by memorandum, to conduct a study of the lube oil
8 system. They have come up with a visualization of the sump at
9 certain angles of list, static. It's important in that study to
10 mention it was not a dynamic analysis.

11 My memorandum to the Marine Safety Center's commanding
12 officer, Captain John Mauger, is Exhibit 386. And Mr. David
13 Karnes, at the Marine Safety Center, completed the analysis. He's
14 an engineer at the Marine Safety Center. So some of the questions
15 will be based on that, and I just wanted to frame where the
16 visualizations came from.

17 THE WITNESS: Thank you.

18 CAPT NEUBAUER: Captain Venturella.

19 CDR VENTURELLA: Thank you, Captain.

20 BY CDR VENTURELLA:

21 Q. Good morning, Mr. Peterson. As the captain stated, I will
22 base some of my questions around a short presentation. But before
23 I get to the presentation, I'm going to briefly discuss a little
24 bit more on the lube oil sump and the gravity tank aboard *El Faro*,
25 including management of sump soundings. We're going to further

1 analyze the impacts of list on the sump and gravity tank that may
2 help explain some of the voice data recorder conversations. After
3 we get through the presentation, there will be some questions
4 about the presentation and then I will go into a video of *El*
5 *Faro's* second deck ventilation trunks to obtain your analysis and
6 understanding of their design differences.

7 So to start, please turn your attention to Exhibit 384.
8 Exhibit 384 is an excerpt from the *El Yunque's* machine operating
9 manual providing general maintenance procedures. In Part 6, the
10 page states the following: "When necessary, add lube oil from the
11 storage settling tank to the sump via purifier to maintain a
12 normal level at 27 inches. Record the amount added in the
13 logbook."

14 Earlier, I believe you confirmed that this is the normal
15 level; is that correct?

16 A. That's correct.

17 Q. Would the instructions within this operating manual be
18 accurate for the *El Faro*, as well?

19 A. Yes.

20 Q. During Chief Gay's testimony, he stated that the sump
21 typically needed 1 to 2 inches of oil added per quarter. Is that
22 your general experience, as well?

23 A. I defer to Chief Gay. He'd know better than I.

24 Q. If you could turn your attention to Exhibit 383, Exhibit 383
25 is *El Faro's* engineer's log from April 24th, 2015. The Marine

1 Board was provided with copies of all of *El Faro's* engineer's logs
2 from February 1st, 2015 until September 1st, 2015. In the period
3 from February 1st until April 24th, the sounding in the sump
4 gradually declined from approximately 25 inches to approximately
5 23 inches, a rate of approximately three-quarter inches per month.
6 This was the only day during the 7-month period we reviewed that
7 we could find an oil addition to the sump.

8 If you know -- in the log, it says the sounding changed from
9 23 to 28 inches during the 08 to 12 watch, through the addition of
10 300 gallons from the lube oil storage tank. Do you see that?

11 A. I have.

12 Q. After this date, the Board has no evidence that more lube oil
13 was added to the sump and the level gradually declined until the
14 final voyage of the *El Faro*, to the best of my knowledge. Is that
15 what you've seen, as well?

16 A. You know, I have not reviewed all the log entries to look for
17 that, but it sounds reasonable.

18 MR. HALBERT: Just a second.

19 (Pause.)

20 THE WITNESS: Yeah. So we did see in here that it is up to
21 28 inches and I think the last log sheet that I saw, it was at 26
22 inches. It was the last one I saw before the accident voyage.

23 BY CDR VENTURELLA:

24 Q. Thank you. And we will look at that a little further in a
25 moment. With regard to the general practice with the sounding of

1 the sumps, you briefly discussed this with Commander Odom, but I'm
2 going to try to see if I can get anything else. Chief Gay
3 specifically mentioned that the sump levels maintained
4 approximately 27 to 31 inches for standard practice at the time
5 that he was aboard this class of vessel. From the review that
6 we've done of the logs, it appears that this practice has changed
7 and that the sump levels are traditionally lower, on the order of
8 23 to 28 inches, which would be on the lower end of the operating
9 range instead of the upper end.

10 Do you have any information on perhaps when and why that
11 practice may have changed?

12 A. I don't know if the practice has changed. It's been a long
13 time since Mark has been on the ships. So to remember those
14 numbers was very good, but I'd argue that they're really not out
15 of the extent of the operating range. We're talking 27 inches.
16 We're down to 26. They take it up to 28 and the lowest that we
17 saw was the 23, I believe, which is equal to this. So I would
18 argue that we're not excessively away from what the prescribed
19 level is supposed to be.

20 Q. I mentioned that my own analysis showed that there may have
21 been up to a three-quarter-inch amount of loss of lube oil as a
22 typical amount. Does that sound like something that is accurate?

23 A. I couldn't say. That would be something we'd have to talk to
24 the crews about. And I understand you were just taking it over a
25 period and just figuring out an average, right? And we don't know

1 what the circumstances could've been. They may have had a loss of
2 lube oil that was unanticipated. A purifier spilling over or
3 something like that, we'd lose a few gallons here and there.

4 Q. Can you explain how the oil level could gradually decline in
5 a closed system like the *El Faro's* lube oil system, just for our
6 education? Thank you.

7 A. You're going to have a small bit of leakage at bearing seals.
8 That's probably one of the larger culprits. Like I had mentioned,
9 though, when you're starting up purifiers you going to lose some
10 oil with that. If you lose a water seal on your purifier, you can
11 break over and lose some lube oil. That was probably one of the
12 things that they came up against. And I think Mark had mentioned
13 that they always shut them down in rough weather. So if you get
14 some excessive rolling, for the purifier, that's one spot there,
15 also.

16 Every time you change out your strainers, you're going to
17 dump a little bit of that oil down into a sump tank or a waste oil
18 tank. So you get your strainers out and get those cleaned.
19 There's a lot of spots where you're going to slowly, slowly lose
20 oil levels. It's to be expected.

21 Q. Please turn your attention to Exhibit 341, page 1. Exhibit
22 341 is the engineer logs dated between August 18th, 2015 and
23 September 1st, 2015. Page 1 specifically is the last log we were
24 able to retrieve for review. On this page you'll note that the
25 sump was sounded six times that day and, according to this log,

1 was sounded at 25 inches four times and 26 inches twice. Do you
2 see that?

3 A. I do.

4 Q. On September 1st, it had been approximately 4 months and one
5 week since the sump was filled on the log we saw before.

6 MR. REID: Commander Venturella, I hate to interrupt, but I
7 believe that there was an addition of lube oil in the July logs
8 and we can -- I think you've been provided those. So I don't want
9 the record to be unclear on that.

10 CDR VENTURELLA: All right. Do you have an exhibit you'd
11 like to --

12 MR. REID: I believe that's been provided to the Board, but
13 we'll get that date and we will make sure that you have them.

14 CDR VENTURELLA: Thank you. I appreciate it if you can bring
15 us the log that shows the addition. Thank you. I did not see an
16 addition of lube oil to the sump specifically on that date, but I
17 would be interested if that were the case. Based on the review
18 that we have at this time, that says that there was only one
19 addition of lube oil to the sumps --

20 MR. REID: Can we not operate on false assumptions? I'd
21 really appreciate that. Thank you.

22 CAPT NEUBAUER: At this time the hearing will recess until we
23 find that engineer log and verify it.

24 CDR VENTURELLA: Thank you.

25 CAPT NEUBAUER: The hearing will reconvene when we have the

1 information.

2 (Off the record at 10:49 a.m.)

3 (On the record at 11:00 a.m.)

4 CAPT NEUBAUER: The hearing is now back in session. During
5 the break, we reviewed the *El Faro* engineering logs from July 20th
6 and 21st of 2015 and that has been added as Exhibit 387.

7 And Commander Venturella, please continue with your line and
8 make a clarification to your prior question, please.

9 CDR VENTURELLA: Thank you, Captain.

10 BY CDR VENTURELLA:

11 Q. So just two clarifications. One clarification, I just want
12 to be clear that during this entire time, as we discussed, they're
13 within the prescribed operating range. It's just a discussion of
14 the typical levels we're seeing in the logs.

15 With that said, I'd like to go to Exhibit 387 to perform that
16 clarification. On Exhibit 387, I'd like to go first to the log on
17 July 20th, 2015, to look at the sump levels there. Do you have
18 that, Mr. Peterson?

19 A. Yes.

20 Q. It appears on this page that the sump level was at 25 inches
21 or 26 inches until the last sounding, in which it shows a 22-inch
22 sounding. Can you clarify anything with regards to how the level
23 might've dropped there?

24 A. Can we hand it down so we can see what the log entries were?
25 That would be the only thing I could say, is if you saw something

1 in a log where they mentioned a loss of lube oil. It does look
2 like they had -- went down 3 inches, 25 to 22. But without
3 knowing the circumstances, I can't comment.

4 Q. Can we go to July 21st now? Before you move on, I believe
5 you were going to check the notes from July 20th; is that correct?

6 A. I don't see anything in the notes that would indicate where
7 they lost the lube oil.

8 CAPT NEUBAUER: Mr. Peterson, would you agree, though, that's
9 a non-standard drop and something occurred to lose at least a
10 couple of hundred gallons of lube oil?

11 THE WITNESS: Yeah, they did lose 3 inches from one watch to
12 the other.

13 CAPT NEUBAUER: Thank you.

14 Commander Venturella.

15 BY CDR VENTURELLA:

16 Q. Sir, if you could look at the next page, it's the July 21st
17 log. There is an addition of lube oil to the sump on this date.
18 It shows a rise in the soundings from 21 inches up to 25 inches or
19 26 inches on the last two soundings. The log also seems to show
20 that that was 350 gallons, I believe. Is that what you see?

21 A. Can you scroll up? Which watch was that? That was the --

22 Q. It should be the 0400 to 0800 watch.

23 A. Yeah, I see that 350 gallons.

24 Q. Based on the review of the July 20th and July 21st logs, does
25 it look to you that they added oil just to get the level back to

1 where it was before the loss of oil, whatever the cause?

2 A. I believe that they increased the level to 25 inches.

3 Q. What was the level you saw on the 20th?

4 A. Can you scroll up again? Lube oil. 22 inches.

5 Q. Prior to the 22 inches, what was the sounding on the 20th
6 again?

7 A. Twenty-five.

8 Q. So it does appear that they went from 25 inches, had a loss
9 of oil of some kind, to 22 inches and then brought it back to
10 around 25 inches again the next day; is that correct?

11 A. That's correct, 25, 26.

12 Q. Please turn your attention back to Exhibit 341, page 1 again.
13 That's the September 1st log. As we stated before, that sump was
14 sounded six times that day and, according to this log, it was
15 sounded at 25 inches four to six times. The sump did sound at 26
16 inches twice. Do you see that?

17 A. I do.

18 Q. Thank you. Please turn your attention to Exhibit 59, page
19 30. Exhibit 59 is the CargoMax output printout from the *El Faro's*
20 final voyage from Jacksonville. Page 3 shows 4.2 long tons of
21 lube oil in the sump, or 33.8 percent of the total volume of the
22 sump. This level appears to equate to a fill level of 1,225
23 gallons or a sounding of 24.6 inches based on the details of the
24 sump sounding table we were able to acquire. Previous testimony
25 provided that these values were entered by Mr. Rodriguez or

1 Mr. Matthews based on information provided by the engineers. Is
2 that accurate?

3 A. Yes, I believe it would come from the chief mate, but he
4 would've, in turn, gotten the values from the engineers.

5 Q. The sounding of 24.6 inches derived from the CargoMax output
6 seems reasonable as the soundings a month prior of approximately
7 25 inches and some lube oil was typically lost over the course of
8 the month. Do you see any reason to doubt the CargoMax-entered
9 lube oil sump level or the converted sounding?

10 A. I'd have to say that this is an estimate. The amount of
11 weight would change for a couple inches one way or the other. I
12 would definitely go by the log soundings as far as a true value
13 for whatever that lube oil sump level was. You have the same
14 people taking these soundings every watch. They see the last
15 sounding, so they can compare how things are going. That's
16 probably the way they'd see it if there was any drops. But I
17 would definitely defer to the log soundings as the true numbers.

18 Q. Sir, as you know, we don't have the engineer log for the time
19 of the departure voyage. We only have up until September 1st.
20 And with that said, the most recent information we have is on this
21 CargoMax output. Are you saying that you would want us to use
22 this sump level on September 1st instead of the CargoMax output?

23 A. In this case I'd have more confidence in that number. I
24 think if we look back on the CargoMax's number, it's not
25 necessarily always correlating with what exactly was on those

1 logbook entries.

2 Q. Does the number I gave you in this case sound reasonable,
3 given the 25 inches, the last sounding? It's 24.6.

4 MR. REID: Can I correct the record? I think the last
5 sounding was 26 on September 1st, at the time.

6 CDR VENTURELLA: As I stated, on that exhibit, it says 25
7 four to six times, 26 inches were sounded twice.

8 MR. REID: But the last one, I believe, was 26, was it not?

9 CDR VENTURELLA: That's correct.

10 MR. REID: Thank you.

11 BY CDR VENTURELLA:

12 Q. Please turn your attention to Exhibit 276. Exhibit 276 is an
13 excerpt from the 1973 ABS steel vessel rules for lubricating oil
14 systems. This document was provided by ABS as the rule governing
15 the lube oil systems aboard *El Faro*; 35.65.1, general section,
16 specifically requires lubricating oil systems to be in a range so
17 they'll function at a static list of 15 degrees or 5 degrees of
18 trim fore and aft. Is this something you're familiar with?

19 A. I am now. I wasn't at the time of the loss.

20 CAPT NEUBAUER: Commander Venturella, before you continue
21 with this line, there was a question pending from the last line.
22 You asked him if you thought 24.6 inches was reasonable. Can you
23 give an opinion on that or at this time you're saying, based on
24 the lack of the logs, you really can't make a determination on the
25 level? I just want to clarify.

1 THE WITNESS: Well, what I was saying is that the CargoMax --
2 I mean, if we look back in the previous month, even though the
3 readings were showing 26 inches, it was still 24.2. So in my
4 mind, I would be more inclined to take that last logbook reading
5 entry that we have as a truer number.

6 CAPT NEUBAUER: Thank you.

7 BY CDR VENTURELLA:

8 Q. As discussed earlier, the *El Faro's* lube oil sump had an
9 operating range of levels that could be anywhere between 18 inches
10 and 33 inches without being considered low or high. Is it your
11 belief that the entire approved operating range should be able to
12 withstand a 15-degree list?

13 A. I would think that that's the design criteria, yeah.

14 Q. Have you ever personally experienced or heard of lube oil
15 suction problems on this class of vessel due to list, trim or
16 extreme rolling while oil levels were within the approved range?

17 A. I have not, but I've also never heard of any of these class
18 of ships having a sustained list over that far.

19 Q. We've seen soundings now as low as 21 inches, I believe is
20 the lowest we've seen. What is the lowest sounding you have seen
21 on *El Faro* or *El Yunque* or this class of vessel in general?

22 A. That's not something I monitor on a regular basis. That's
23 for the crew to do.

24 Q. Would it be acceptable and within TOTE policy for a chief
25 engineer to allow the sump to get close to the 18-inch low level?

1 A. The engineers that TOTE has working for them, part of the
2 TOTE organization, they're a very prudent group, they're very
3 knowledgeable of their systems and they're going to do what's
4 right, as far as -- I don't believe they would ever allow the
5 levels to get down to that level. That's part of their training.

6 CDR VENTURELLA: Now I'm going to go into the presentation
7 that the captain introduced before.

8 Lieutenant Commander Yemma, can you bring up Exhibit 323 on
9 the projector?

10 Exhibit 323 is a presentation developed in conjunction with
11 the Marine Safety Center support. It provides a lube oil system
12 visualization to examine the list and trim impacts on system
13 functionality. It was purely a static examination and just static
14 images only, and we tried to look at specific lists and trims that
15 would apply to the casualty based on the VDR. For instance, we
16 did examine 15 and 18 degrees, which are two lists mentioned on
17 the VDR. We used it for the duration of this operational trim,
18 but we did also look at the limits of trim and list specified by
19 the '73 rules. For the purpose of this presentation, I did not
20 provide every image developed, but just some select images to keep
21 this short.

22 Can you go to the next slide, please?

23 Slide 2 shows the sump, gravity tank and lube oil storage
24 tank models which were developed based on *El Faro's* plans, laid
25 over a general arrangement drawing from *El Faro*, to show proper

1 elevation and positioning of the tanks. As you can see on these
2 models, there was no attempt to develop the piping between the
3 tanks, just the piping within the tanks. There was also no
4 attempt to put in the model the internal structure of the tanks,
5 as we didn't feel that was necessary for a static analysis only.

6 Next slide, please.

7 This is just a close-up of the most-examined tanks, the lube
8 oil sump and the gravity tank. We did very little with the
9 storage tank in this analysis, but we had it in case we decide to
10 do future work.

11 Next slide.

12 This slide shows two different sump loading conditions at a
13 15-degree port list. The left-hand image is developed using the
14 low-level 18-inch sounding or 724 gallons with a 15-degree port
15 list. This image shows, in a static case, that a 15-degree port
16 list would be very problematic for the suction in the sump due to
17 its offset away from the port list.

18 In the second image, the analysis focused on a sounding based
19 on CargoMax of 24.6 inches, as discussed. Based on that sounding
20 for 1225 gallons, it appears with a 15-degree port list that the
21 bell-mouth is still within the oil in a static case. However, it
22 seems that that could change in a dynamic analysis. We did not do
23 that.

24 Next slide, please.

25 This slide shows some list effects on the gravity tank. On

1 the left-hand side there is some pocketing in the upper portion of
2 the gravity tank depicted in red. It shows additional lube oil
3 that would have to be provided from the sump, in a list condition.
4 And so it could potentially lower the sump level by an equivalent
5 amount due to the closed system.

6 In the picture on the right-hand side, it shows a different
7 kind of pocketing. If you have rundown of the gravity tank after
8 a loss of suction, it would impact the potential rundown time of
9 the tank, reducing by some amount, which we did not calculate at
10 this point. But we do have a picture here of the potential
11 pocketing away from that supply pipe.

12 Next slide, please.

13 As discussed, we did look at an 18-degree port list and, once
14 again, for consistency, we're showing the low level in the sump
15 and the assumed departure condition based on the CargoMax 24.6-
16 inch sounding. You can see, the 15 -- the 18-degree list with an
17 18-inch sounding looks really bad in terms of the placement of the
18 oil level with regard to the bell-mouth. But the 24.6-inch
19 sounding, it looks like the bell-mouth is close on -- or it looks
20 pretty much still in the oil, but this is in a static picture.

21 Next slide, please.

22 This is the same pocketing shown for an 18-degree list, just
23 to show what the gravity tank may look like in that condition.

24 Next slide, please.

25 This slide is an animation produced at the departure

1 condition of 24.6 inches for the lube oil sump and it's done in
2 one-degree increments from 0 to 20 degrees, and if we could go
3 ahead and play that, Mr. Yemma.

4 (Animation played.)

5 CAPT NEUBAUER: Commander Venturella, this is assuming a port
6 list to the vessel; is that correct?

7 CDR VENTURELLA: Yes, that's correct. This is a port list
8 from 0 to 20 degrees and you can see that from the way it's going
9 away from the bell-mouth again. And if you could play that a
10 couple more times while we're talking.

11 BY CDR VENTURELLA:

12 Q. What this is generally showing is that somewhere around 19
13 degrees the bell-mouth, at least on an edge, comes out of the oil.
14 Do you see that?

15 A. I do.

16 Q. Mr. Peterson, would the crew of *El Faro* have been aware of
17 the offset suction within the sump and the potential
18 susceptibility of the systems to a port list?

19 A. I don't know if those crew members that were on there had
20 been in that sump. I think you had some very experienced chiefs
21 on there, between Rich and Jeff, but I wouldn't be surprised if
22 they had been in there and were aware of that, whether it would've
23 registered at the time.

24 I would mention, though, as we went down in that sump on the
25 *El Yunque*, we could see why it was off center. There was a

1 bulkhead that you can see a faint line there in this, where it's
2 at. But my recollection was also -- I mean, not to dispute the
3 idea here, but that that bell-mouth was actually centered within
4 that compartment. And I know this was taken off of the drawings
5 and this is what they show. It's over to that extreme edge on
6 that. But I think, as you remember, as we went down and looked at
7 it, it was kind of in the center of that compartment.

8 CAPT NEUBAUER: Mr. Peterson, did you actually see the bell-
9 mouth where you say it was blocked by a bulkhead? I'm just trying
10 to clarify.

11 THE WITNESS: This was on the *El Yunque*, not on the *El Faro*.
12 But on the *El Yunque* they had cut it out so we can visually see
13 the bell-mouth and it was centered within that compartment, as I
14 remember it.

15 MR. WHITE: Can we take a break for 2 minutes, please?

16 CAPT NEUBAUER: Yes. The hearing will recess and reconvene
17 at 11:30.

18 (Off the record at 11:23 a.m.)

19 (On the record at 11:42 a.m.)

20 CAPT NEUBAUER: The hearing is now back in session.

21 During the recess we had some discussions about the lube oil
22 sump on the *El Faro* and on the *El Yunque*.

23 Lieutenant Commander Yemma, what exhibit number are we
24 displaying right now?

25 If I can draw your attention to Exhibit 349, this is a

1 drawing of the internal of the lube oil sump for *El Yunque* and *El*
2 *Faro*. We used this drawing to do the visualizations and per this
3 drawing, we showed the bell-mouth of the suction to be about 18,
4 the center of the bell-mouth to be about 18 inches offset from the
5 center line of the vessel. During the discussions, we discovered
6 that NTSB Investigator Brian Young was on board the *El Yunque* and
7 took a video and measurements of the sump and the intake on
8 January 10th, 2017. In that video, he measures the center line to
9 the center of the suction and measured that distance to be 17
10 inches, which is about a 1-inch difference than our drawing. I
11 just wanted that on the record for any other questions. They just
12 wanted that on the record, sir. And we are going to have the NTSB
13 video as an exhibit, but we will not have that for you at this
14 time, Mr. Peterson.

15 THE WITNESS: Thank you.

16 CAPT NEUBAUER: TOTE, I want to make sure. Mr. Reid, do you
17 have any other clarifications you'd like to make? Does that
18 satisfy the conversation?

19 MR. REID: If we could also clarify about how far from the
20 edge of the bottom of the tank was observed, it would be good. On
21 this particular drawing it shows that it's right at the edge, but
22 if we -- where the bell-mouth is, and if we could clarify that on
23 the record, I'd appreciate that. Thank you.

24 MR. YOUNG: For the record, this is Brian Young from the
25 NTSB.

1 While I was in the sump of *El Yunque*, I took that measurement
2 and from the starboard side of the bell-mouth to the starboard
3 bulkhead in that compartment was 9 inches.

4 MR. REID: Thank you.

5 CAPT NEUBAUER: ABS, I want to make sure, are there any
6 clarifications you'd like to make about the discussion?

7 MR. WHITE: No, Captain, thank you.

8 CAPT NEUBAUER: Commander Venturella, can you continue with
9 your line, please?

10 CDR VENTURELLA: Yes. Thank you, Captain.

11 BY CDR VENTURELLA:

12 Q. Mr. Peterson, you said that you listened to Chief Gay's
13 testimony. In that, he said that when he entered the sump, that
14 he never saw the bell-mouth. Did you hear that?

15 A. I honestly don't recall that.

16 Q. Would the crew of *El Faro* have been aware of the potential
17 loss of sump oil due to the gravity tank during a list due to
18 pocketing? The pocketing effect we showed you.

19 A. As operating engineers, I don't think they would've taken
20 that into account.

21 Q. Would the crew have been aware that the gravity tank's supply
22 and overflow piping enter the tank similarly to offset the
23 starboard?

24 A. Yes, they would've been aware of that.

25 Q. Would the crew have been concerned about any drop in the

1 rundown time from the gravity tank during severe list conditions?

2 A. Well, Commander, these aren't the types of issues that they'd
3 be thinking about while they're operating the system. They
4 operate -- they're not going to take into account a pocketing. It
5 is what it is. They've got to run the ship.

6 Q. In the presentation, we showed you several possible
7 conditions due to offsets in the sump and gravity tank. Is it
8 possible that these types of conditions resulted in the higher
9 filling of the sump in the past, but perhaps the reasons were not
10 completely understood at the time?

11 A. Can you rephrase that?

12 Q. I'll be more specific. With regard to the sump and the
13 offset of the bell-mouth, it appears that a port list, in
14 particular, may be something that would be problematic for the
15 sump, would you agree?

16 A. With an extreme list, yes.

17 Q. Would it also potentially have an impact on a dynamic heavy
18 roll?

19 A. If you're coming back to the center line, you're talking a
20 regular roll of the ship?

21 Q. Let's say that you have a port heel due to wind and you're
22 rolling about that heel due to wind. Could it have caused
23 problems in the past?

24 A. Well, they would have to be over to that 15-degree heel or
25 more, and I suppose it could cause problems.

1 Q. Could it be due to not a list of 15 degrees but just rolls
2 beyond 15 degrees that you may have intermittent problems?

3 A. That was a question we specifically asked and that was the
4 reason we had the interviews with the Alaska chief engineers and
5 the guys out here on the East Coast, if they had any issues on
6 regular rolling of the ship, even extreme rolls, and they all came
7 back and said that they never saw any issues themselves. That
8 also goes to what I was talking about before, is the high baffling
9 in these tanks really -- and I'm convinced that's why they didn't
10 have any issues. When you have a heel, that definitely puts
11 another factor into the pump dynamics.

12 Q. You mentioned that inquiry that you conducted in terms of
13 past operation of the vessel. In discussing that with them, did
14 you happen to ask where these sump levels they typically operated
15 at were? Were they in the range that Chief Gay testified to that
16 were a little higher?

17 A. So these were the Coast Guard and NTSB -- I guess it was more
18 the NTSB interviews that were done with the chiefs. I don't
19 recall whether the question was asked, to answer you.

20 Q. Based on what we discussed in the presentation, can you add
21 anything else to the Board's understanding of the loss of lube oil
22 aboard *El Faro* that you haven't already discussed?

23 A. No, I don't have anything else to add.

24 CDR VENTURELLA: Sir, next we're going to move on from the
25 lube oil topic on to a video of *El Faro's* second deck on September

1 2008. That video is Exhibit 380.

2 And Lieutenant Commander Yemma, if you could bring up the
3 video on the projector. I'd like to first play the portion of the
4 video from the start to one minute and 45 seconds. Before you
5 play that video, just briefly, what this video is going to show up
6 until that point is running along the second deck, heading aft on
7 the starboard side. And we'll talk about the video after we view
8 it, with some questions. So just for now if we can play the video
9 and just watch it and I'll ask you the questions after.

10 All right, can you play it until 1:45, Lieutenant Commander
11 Yemma?

12 (Video played.)

13 BY CDR VENTURELLA:

14 Q. Okay. Would you agree, sir, that what we were just looking
15 at was along the starboard side of the second deck going aft?

16 A. Yes.

17 Q. Based on my understanding of where we're at on the deck right
18 now, we still haven't gotten to Frames 1:59 until 1:62. Exhaust
19 ventilation trunks we heavily discussed in prior testimony. Do
20 you also agree with that?

21 A. Yes, I'll agree with that.

22 Q. In the video we did watch, you did see some exhaust
23 ventilation trunks and then you also saw some racking bulkheads
24 with access openings. Did you see those?

25 A. I did.

1 Q. Can you explain what is inside those particular racking
2 bulkheads and if that access opening ever had a cover on it or is
3 it always open?

4 A. The racking bulkhead is just a strength member, a support
5 member for the ship. As far as what's in it, I don't remember
6 there being anything -- I really don't recall what the structure
7 was, the -- inside that or if it was just open. As far as the
8 openings go, some ships had put screens over these or doors to
9 keep stowaways out and then just if it -- that leaves them with
10 one less space they have to inspect before they leave port. If
11 it's closed off, then nobody can enter it. So that would be the
12 change I see between the ships.

13 Q. Are you aware, on *El Faro*, at the time of the departure
14 voyage from Jacksonville, whether those would've been like in the
15 video, with the access openings open like that?

16 A. You know, I don't remember if they had put screens over those
17 like they did on some of the other ships.

18 Q. Is there anything else you know, like during this portion of
19 the video, that you'd like to tell us about?

20 A. Just that it looks like a very clean ship and this crew has
21 got some pride taking these videos.

22 CDR VENTURELLA: Lieutenant Commander Yemma, could you play
23 until 2:45 now?

24 (Video played.)

25 BY CDR VENTURELLA:

1 Q. Mr. Peterson, during that last minute we just watched, it
2 appeared to show the exhaust ventilation trunks for the port and
3 starboard between Frames 159 and 162. Did you see them?

4 A. Yes. You're talking in the racking trunk, those, yeah.

5 Q. Yes. It appears that these also have the same racking
6 bulkheads, but the exhaust ventilation trunks may be inside. I'm
7 hoping you can describe to me what it looks like inside the Frame
8 159 to 162 racking bulkheads, in terms of the ventilation trunk
9 and the fire damper.

10 A. You know, Commander, I'm having a hard time remembering back
11 as far as that specific area. I do remember -- if I remember, on
12 the *El Yunque* walk-around, it looks like there was a bolted access
13 plate on those as opposed to being wide open. But I can't look
14 too far back in my memory there to remember this, what these had.

15 Q. If you remember, aboard the *El Yunque*, like you said, a
16 bolted cover, you would enter and then in the outer portion, if
17 you entered into the fire damper chamber, there would be a 39-inch
18 plate and a fire damper of steel with no gasket. Do you recall at
19 all if there was that type of layout or whether it was a bulkhead
20 that ran all the way up?

21 A. Sorry, I really don't remember on the *El Faro*.

22 CDR VENTURELLA: I have no further questions, Captain.

23 CAPT NEUBAUER: Mr. Peterson, at this time I'd like to go to
24 the NTSB for a few questions. Would you like to take a break or
25 keep going?

1 THE WITNESS: A short quick one.

2 CAPT NEUBAUER: The hearing will recess and reconvene at
3 12:05.

4 (Off the record at 12:00 p.m.)

5 (On the record at 12:09 p.m.)

6 CAPT NEUBAUER: The hearing is now back in session.

7 At this time we'll go to Mr. Young for questions from the
8 NTSB.

9 MR. YOUNG: Thank you, Captain.

10 BY MR. YOUNG:

11 Q. Thank you, Mr. Peterson, for your testimony today. Most of
12 my questions will revolve around the lube oil system, but I have
13 one follow-up question regarding the position that's a backup to
14 the DPA. Have you ever been tasked with that requirement?

15 A. I haven't -- have not.

16 Q. Thank you. There's been a lot of discussion about how the
17 trim -- I'm sorry, the list has affected the lube oil system.
18 Have you had any issues or reason to believe that the trim or the
19 pitching of a ship, the fore and aft motion, could have adversely
20 affected the lube oil system based on the position of the lube oil
21 sump suction?

22 A. I really haven't thought about that, but -- and I don't have
23 an opinion to answer, but we are looking at the lube oil suction
24 being at the after end of the sump. So depending on the
25 situation, it's a possibility.

1 Q. And with regards to oil and sumps, we heard from the VDR that
2 the engineers are having problems and issues with the sumps. One
3 of the other sumps that has crossed my mind are the turbo
4 generator sumps. Can you please speak to the design and the
5 probability that there may have been issues with the lube oil
6 system from the turbo generators?

7 A. Sure. That is something that we looked at specifically on
8 the *El Yunque*. The way those pumps are set up, it is along one
9 side of the inboard side of the skid that the turbo generator sits
10 on. It's a rectangular tank. As we noted, though, the main lube
11 oil suction is square in the center at the bottom of the tank. In
12 other words, transversely as well as longitudinally, it's in the
13 center of the tank or very, very close to that.

14 So I don't see where any attitude of the ship should affect
15 the suction for the main lube oil pump on that. The auxiliary
16 pump, which you use for when you're starting the system, is at the
17 after end of those sumps, but again, you'd have to be in an
18 extreme -- I really can't see where even that one would have any
19 problems picking up suction.

20 Q. Understood. Thank you. From your knowledge and your
21 position as a servicing engineer, have you provided any
22 troubleshooting service for any lube oil pumps throughout the
23 Ponce class ships?

24 A. No, I never remember there being any issues, at least that
25 they approached me about.

1 Q. I have a list from the chief engineer for items to be looked
2 at in the upcoming shipyard. One of the items was a mechanical
3 seal and another item was one of the pumps was running 3 PSI less
4 than the forward pump. In your opinion and based on your
5 technical background, do you think a 3-PSI difference in output
6 pressure is significant?

7 A. No, not at all. But that would be something that if you know
8 you're going into a shipyard, they're properly watching the trends
9 on these and if they see that the pressure is dropping off, it's a
10 good time to address it.

11 Q. What about the effects of a leaking mechanical seal?

12 A. You're not going to adversely -- really affect the
13 performance of the pump if you have a small leak. If it's more of
14 a nuance item as opposed to a pressure, it's, you know, taking
15 care of the mess and you've got to do something with the oil, and
16 that's generally work when people start wanting to replace these.

17 Q. When the vessel was challenged with a starboard list and you
18 attempted to correct the list by using the ramp tanks, could you
19 please discuss the capacity of the tanks and how much effect they
20 may have had to correct the list?

21 A. Yeah, I don't have the capacities of the tanks off the top of
22 my head, but I know that there were limits as to how much those
23 tanks could correct. And I recently -- and I just saw this, is
24 we're, I want to say, about 3 degrees. So they're not real large
25 tanks, but it's how they would handle the small corrections

1 needed.

2 Q. Were there other tanks available to correct a more severe
3 list?

4 A. Not ballast tanks. You've got a couple tanks up forward,
5 deep tanks. But as far as for a list, there weren't any saltwater
6 tanks that you could do a correction with.

7 Q. Understood. Thank you. When we were discussing the
8 challenges the engineers had with the lube oil pressure loss, it's
9 our understanding that upon a loss of pressure in the lube oil
10 pumps, the gravity tank and drum drop contents down to the sump.
11 In order to regain prime, we've heard testimony that the gravity
12 tank could be used as a positive pressure to apply it to the
13 suction side of the pump. If the contents had been emptied in the
14 gravity tank, how do you see -- what do you see as a possibility
15 to regain the prime to establish suction again?

16 A. You could use the lube oil storage tank to effectively do the
17 same thing, drop lube oil from that tank down to the suction side
18 of the pumps, and also to push oil into the seals. I take that
19 back. You're not going to push oil in the seals. You're going to
20 allow the air out while you're feeding oil into the suction side.

21 Q. Was there any opportunity to introduce an independent pump
22 into the system in an emergency, such as a double-diaphragm pump?
23 Do you know of any connections available or any procedure that may
24 have allowed that?

25 A. I don't remember any procedures or connections. Marine

1 engineers will get pretty crafty if they have to. So you know,
2 that could be something --

3 Q. There was some discussion about blowing tubes on the 4 to 8
4 watch, which is a typical process for the second engineer to
5 conduct. During the tube-blowing process the boiler is secured,
6 one of the two boilers is secured. What effect does that have on
7 the speed and the reliability of the plant?

8 A. Maybe you want to rephrase that. Sorry, securing a boiler?

9 Q. In order to blow tubes, do one of the boilers have to be
10 secured?

11 A. No, you reduce speed while you're doing the tube-blowing, but
12 you don't secure a boiler.

13 Q. Is it possible that the fact that tubes are being blown
14 during the 4 to 8 watch that morning suggest that the engine
15 department may not have known the weather conditions?

16 A. I don't know if I could make that correlation between the
17 two. I think that they were just doing their regular routines.
18 Now, whether they were aware of the weather, I don't think I could
19 make that jump based on that.

20 Q. Thank you. We understand, from visiting *El Yunque*, that
21 there were a number of different modes of propulsion control, one
22 of them being electronic throttle control. Is that the typical
23 mode of operation when a vessel is at full sea speed?

24 A. Correct. That's going to be your normal operation. There
25 was four modes of operation on these ships, so that's the one they

1 would use under normal conditions. If they had an issue with the
2 electronics on that particular mode, but they still had lube oil
3 for the control circuit, then they can go to what they call the
4 direct mode, which is also right from the console. And rather
5 than using electric motors to position your pilot valves, you're
6 directly positioning them right from the console through a hand
7 wheel. If you did lose control oil on the system, then you have
8 two other modes of operation, I think, that we spoke to a little
9 bit earlier, one being the hydraulic rams which lift a beam that
10 is placed over the turbine and physically just lifts the --
11 through cables and lifts the valve open, one for the astern and
12 one for the ahead.

13 The fourth mode is the emergency bar, which is basically you
14 have to link over the end of the valves and put a bar in and just
15 through leverage, you're able to overcome the spring pressure on
16 the throttles and open them.

17 Q. Thank you. Changing gears to the ventilation system, do you
18 know if it was a normal procedure at sea for the supply and
19 exhaust fans to be running within the ventilation -- within the
20 cargo holds?

21 A. Yes, it was normal operation.

22 Q. And were you aware if there was any guidance regarding the
23 damper position for the cargo fans within the cargo holds?

24 A. I'm sorry, can you repeat that?

25 Q. Did the company have any guidance that was provided to the

1 vessel with regards to supply and exhaust fan and damper
2 operations, whether they were to be opened or closed on different
3 elevations of the ship?

4 A. There was some guidance. I don't know if it was a company
5 guidance or if this was actually a regulatory requirement.

6 Q. And we tried to figure out, within the cargo holds, the
7 height of the bilge float that activated the alarm, a ball above
8 the rose box. Do you have any indication as to how high the water
9 level would have to rise in Cargo Hold 3 to activate that alarm?

10 A. No, I don't.

11 MR. YOUNG: That's my questions for now.

12 CAPT NEUBAUER: Thank you.

13 Mr. Kucharski.

14 MR. KUCHARSKI: Yes. Thank you, Captain.

15 BY MR. KUCHARSKI:

16 Q. Good morning, Mr. Peterson.

17 A. Good morning, Captain.

18 Q. Just a couple quick questions. You're now director of
19 operations for TOTE Maritime Puerto Rico, did you say?

20 A. That's correct.

21 Q. And previously, during the sinking of the -- with the
22 incident of the *El Faro*, you were director of marine safety and
23 services, correct?

24 A. Director of safety and marine services, yes.

25 Q. And before that, you were port engineer on the vessels?

1 A. Correct.

2 Q. When was the last time you were port engineer on the vessels
3 and particularly, the *El Faro*? Were you port engineer on the *El*
4 *Faro*?

5 A. Yeah, we handled both vessels. I took the position with TOTE
6 Services starting in January of -- the 1st of the year 2014.

7 Q. So you were port engineer in 2014?

8 A. No, I was port engineer through 2013.

9 Q. And that was about the same time -- Chief Gay left in 2013,
10 also?

11 A. I think that's -- yeah, I think so.

12 Q. When you were port engineer, how many times did you go down
13 and inspect all the cargo holds? Was that regular? Every week
14 when you came in you went down and drove through the holds?

15 A. I wouldn't say every week. I'd generally take a walk-around
16 on the ships whenever they were in port and try to hit a different
17 area every time. I'd say over the course of a month, a month and
18 a half, I believe that you're pretty much seeing everything on a
19 ship.

20 Q. And when you were director of marine safety and services, did
21 you do regular inspections of the cargo holds, also?

22 A. No. I'd take a walk-around if the opportunity arose to get
23 down in the port, but I wasn't down there on a daily basis like I
24 was as a port engineer.

25 Q. And I think the question came up about did any of the port

1 engineers discuss the cargo when the vent fails and the operation
2 of those and the possibility of water or any kind of a problem,
3 you know, with them not being closed. Do you remember that
4 earlier this morning?

5 A. Can you remind what you're talking about?

6 Q. Yeah, the port engineers -- well, let me back up. I'll ask
7 you -- let me remind you. Did they have any port captains at the
8 time you were port engineer for those vessels?

9 A. Yeah. Don Matthews had the title of port captain for a
10 while.

11 Q. Okay. He never sailed as captain and never went to sea on a
12 merchant ship; is that correct?

13 A. That's correct.

14 Q. And Don Matthews, I think, previously testified that he had
15 no formal stability training. Did you have any stability training
16 when you were port engineer, formal stability training?

17 A. Not beyond what we got in college.

18 Q. Did you ever have any formal training on CargoMax?

19 A. No, sir.

20 Q. Did you ever discuss with the captains the damper stability
21 portion of the module of CargoMax?

22 A. No, I didn't.

23 Q. The cargo holds, Number 3 Hold specifically, was the
24 machinery and the lighting down there intrinsically safe?

25 A. You know, I'm not sure that it was intrinsically safe. I

1 believe it was all -- I'll leave it with that.

2 Q. I think Commander Odom asked you some questions about risk
3 assessment, identifying risks of the vessels. I believe your
4 comment was you had checklists for that; is that correct?

5 A. Yes, sir.

6 Q. Do you know if those checklists identified any severity or
7 impact of the risks to the vessel if you were to actually --
8 something happens where that risk occurred?

9 A. I don't know. I'll let Captain Lawrence speak to that later.

10 Q. Okay. Would that also hold for the probability of the risk
11 occurring?

12 A. Yes, sir.

13 Q. Okay, thank you. We'll save that for Captain Lawrence.

14 Exhibit 26, please, page 163, Commander Yemma. And this is the
15 emergency preparedness manual for the vessel and it's Section 9.7.
16 If you would look at that, please. And when you're ready to go,
17 I'll get you to look at a particular paragraph, paragraph 2.

18 A. All right.

19 Q. Would the scuttles also be part of that? It mentions special
20 attention to possible access of water can affect watertight doors,
21 scuppers, bilge lines, et cetera. Would the scuttles be also part
22 of that?

23 A. Yes, of course. Yes.

24 Q. Tell me, the scuttles, do you recollect if they had a
25 mechanism like a wheel on the underside of the scuttle? If you

1 were to enter from the second deck, go in, could you close that
2 scuttle and then tighten it for watertight integrity?

3 A. Yes, you could.

4 Q. Was there an Iridium payphone type of system where you would
5 use your credit card, installed on the *El Faro* at one time? For
6 when it went foreign, they had a system where the crew could use a
7 phone to call?

8 A. I don't know if they had that setup.

9 Q. The rapid response damage assessment system, do you know if
10 that was a requirement to have that system, an ABS system damage
11 assessment requirement or anything like that?

12 A. My understanding was that it was not a requirement.

13 MR. KUCHARSKI: Okay, thank you. Thank you, no further
14 questions. Thank you, Captain.

15 CAPT NEUBAUER: Thank you. At this time I'd like to go the
16 parties of interest. TOTE, do you have any questions? And this
17 will be we're only doing one round of questions.

18 MR. HALBERT: Captain Neubauer, if I could, I'll begin.

19 BY MR. HALBERT:

20 Q. There has been some coverage of whether the Coast Guard
21 ordered the *El Yunque* to be scrapped. Could you tell us if that
22 is accurate and what you know about that subject?

23 A. Yes. My understanding is -- well, the decision on scrapping
24 the *El Yunque* was -- I was not involved in that decision, but my
25 understanding is that it was a commercial decision and it was

1 based on the conversions that were ongoing with the Orca Class
2 ships.

3 Originally, the Orcas were going to have the main engines
4 converted so they could burn natural gas to meet the emission
5 standards that we need to address. The manufacturer of the
6 engines then came back and said that that could not happen, that
7 they would not be able to do that conversion. That put TOTE in
8 the place where, instead of doing a conversion of the existing
9 engines, we had to replace the engines, total. Replacement
10 engines ended up requiring us to go to a foreign shipyard and it
11 was going to be a lengthy process to get that accomplished. To
12 accomplish that, we needed to have a ship to fill in as the two
13 Orcas were taken out of service for months.

14 Subsequently with M-A-N, the engine manufacturer came back
15 and said that they could do the conversion of the engines that we
16 currently have in place. So that negated our need to have the
17 *El Yunque* enter into the Alaska service. The current conversion,
18 a lot of it could be done underway on the vessels and for the
19 required shipyard periods; they're of a short enough duration
20 where we don't require a replacement ship to fill in for them.

21 Q. So that change of dynamics was one of the reasons that the
22 company decided to scrap the *El Yunque*, and were you aware that
23 there were other commercial considerations that were going into
24 the thought process, as well?

25 A. No, I was not part of that.

1 Q. There has been some discussion of personnel allocated to
2 certain functions. There was an organizational change.
3 Primarily, I'd like to focus on the period of 2011 to August of
4 2014, where the number of vessels changed, the location of key
5 personnel were changed, and just describe that evolution of the
6 number of people assigned to support the personnel in
7 Jacksonville.

8 A. Well, the number of ships needed in the service went from
9 three down to two. When the *Sea Star* was still in the
10 Philadelphia service, that required two ships on that service.
11 When they did away with that service, the *El Faro* was laid up,
12 leaving *El Morro* and the *El Yunque* in the service.

13 In 2011, the company had a reorganization whereby the
14 engineering operational support went to Totem Ocean Trailer
15 Express. So they were actually running the -- or managing the
16 operation side for the ships. I was left down in Jacksonville as
17 a *Sea Star* port engineer that worked -- I took my technical
18 direction from the group up in Tacoma and they had -- they also
19 had a laid-up ship there, so they had -- I won't say extra, but
20 they had enough personnel to cover the operation.

21 And the way it basically worked is that I was there for day-
22 to-day operations. If I had to ride on a ship for a reason, go to
23 San Juan or whatever, they would send someone down to backfill.
24 They also took care of all the shipyard preparations and the
25 shipyard attendants.

1 In 2014, the operation side was moved over to TOTE Services.
2 It was in line with -- they were already in the crewing and the
3 SMS implementation, so it was in line with that to fill out the
4 whole ship operation under one organization. What they ended up
5 doing is, by then, we did have two port engineers down in
6 Jacksonville by the end of 2013. We ended up with basically the
7 same complement by the beginning of -- mid-2014, that we'd had
8 prior to the reorganization, with a director, two port engineers.
9 The procurement department head also moved down to Jacksonville.
10 The security group moved to Jacksonville, also. So we actually
11 ended up with a lot more boots on the ground, if you will, in
12 Jacksonville as opposed to how the operation was previously.

13 MR. HALBERT: I'll pass it to the side table now.

14 CAPT NEUBAUER: Mr. Reid?

15 MR. REID: No questions, sir.

16 CAPT NEUBAUER: Mrs. Davidson?

17 BY MR. BENNETT:

18 Q. Good afternoon, Mr. Peterson. You sailed as a chief
19 engineer, I believe, was your testimony, correct?

20 A. That's correct.

21 Q. How many years did you do that?

22 A. As chief, I believe it was about 5 years. Total, I sailed
23 about 25 years.

24 Q. And in your 25-year history of going to sea, did you ever hit
25 heavy weather?

1 A. Yes, I did.

2 Q. Did you ever hit a tropical storm?

3 A. Yes. I sailed mainly in the Pacific but yes, we hit a lot of
4 heavy weather.

5 Q. In the VDR transcript there was some conversations. One of
6 the panel members was asking you about the speed that the vessel
7 was going. Would you agree with me that when assessing storm
8 avoidance and course, one of the other assessments you make is the
9 ship's speed?

10 A. I agree with that.

11 Q. And on the northbound voyage that the *El Yunque* had, were you
12 aware, as you sit here today, that the officer crew actually
13 consisted of three masters, that being Mr. O'Donnell, Mr. Torres,
14 and Mr. Stith?

15 A. I'm aware of that now, yes.

16 Q. If we can go to the VDR transcript, which is Exhibit 266, and
17 if we can go to page 384. And let me know when you're there, sir.

18 Sir, on the top, there's a conversation and again, there are

19 limitations with the VDR and we've already talked about it

20 extensively, but the captain says, on the electronic telephone,

21 "how are you? you want us to take the list off a little bit?"

22 And then there's a conversation that can't be caught by the VDR.

23 The remainder of the conversation, some is on the left page,

24 some is on the right page. The right page indicates that it's an

25 electronic telephone. I want you to move those conversations to

1 the left side. So it looks like something like this. The chief
2 mate says "looks like we can head up real fast." The chief mate
3 says "keep it right 10." The captain then says "okay." The
4 captain then says "that's good." The chief mate says "just like
5 this." Then the chief mate says "(now it's in hand) go ahead and
6 bring it around a little bit." The captain -- and there's a
7 question mark indicating that we don't know whether it's him. He
8 says "alright. shut her down."

9 Knowing that the chief mate says "(now it's in hand)," i.e.,
10 the steering went automatic to hand, when the captain said
11 "alright. shut her down," does that mean that he's shutting down,
12 potentially, the autopilot?

13 A. That makes sense.

14 Q. Sir, we've talked a lot about the deck crew that sailed
15 aboard the *El Faro* and we want to talk a little bit about the
16 engine crew, since they're not represented here. The first
17 gentleman I want you to tell us about is the second assistant
18 engineer, Mr. Schoenly. Did you know him?

19 A. Yeah, I knew Howie for a lot of years.

20 Q. How many years?

21 A. I'd say at least eight, if not many more than that.

22 Q. Highly competent second assistant engineer?

23 A. Absolutely. And just a good person to be around.

24 Q. Did you know Chief Engineer Mathias?

25 A. I did. I knew Jeff way back when he was sailing with Totem

1 Ocean Trailer Express.

2 Q. Tell us about him.

3 A. Another competent -- just that group in general were just
4 enjoyable to work with, to be around, and in my previous job as a
5 technical representative, the service engineer, if you will,
6 getting to work with these guys in the shipyard periods, I should
7 say it was always good.

8 Q. Tell us about Chief Engineer Pusatere.

9 A. Rich holds a special place for me. I got to know him pretty
10 well. He left us for a while, then he came back and said this is
11 really better over here. I mean, it's just -- again, it was many
12 years.

13 Q. One of the most competent chief engineers you ever met,
14 correct?

15 A. Yes, sir.

16 Q. You mentioned a key term in your testimony about when we
17 looked at the *El Faro* and about crew pride. That starts with the
18 captain and the chief engineers that run those ships, doesn't it?

19 A. Yes, it does.

20 Q. And to be fair, it also starts with the executives that run
21 the company, correct?

22 A. That's correct.

23 Q. And when you look at the deck crew and the engine crew of the
24 *El Faro*, you can sit here today and tell this Board that they were
25 one of the most highly competent officers that you ever met,

1 correct?

2 A. Absolutely.

3 Q. And let's not forget the deck crew and the engine crew that
4 were unlicensed. Those unlicensed crew members were top notch and
5 that's why you guys hired them.

6 A. And that's why they would always keep coming back to the same
7 ship.

8 MR. BENNETT: Thank you, sir. No further questions.

9 CAPT NEUBAUER: ABS?

10 BY MR. WHITE:

11 Q. Good afternoon, Mr. Peterson. Mr. Peterson, during your
12 testimony earlier today, I wrote down a quote and the quote was to
13 the extent that you indicated that experienced engineers have the
14 details on the top of their head. And I forget in what specific
15 reference you made that, but you provided that response to it.
16 But if they didn't have all the details on the top of their head,
17 wouldn't the engine room contain the specific technical manuals
18 for lube oil system or other systems aboard the vessel?

19 A. Yes, sir. And we have to remember the reason they have that
20 on the top of their head is they refer to those manuals on a
21 regular basis. The *El Morro* -- excuse me, the *El Faro* is a little
22 bit unique, in that there was an office off to one side and it had
23 all the manuals right there, as opposed to having to go up to the
24 chief engineers. But if you look at those manuals, they are dog-
25 eared, for sure.

1 Q. And in addition to the specific technical manuals, are there
2 specific operational manuals that may provide an overview of
3 equipment or operational procedures that are specific to the
4 company and that vessel?

5 A. Yes, there are.

6 Q. And just to follow up on that briefly, Exhibit 384, sir, is
7 an excerpt that's been marked as an exhibit and in several of the
8 paragraphs -- it's only, I guess, one page of a manual -- it
9 indicates, in paragraph 3, the main engine lube oil strainer;
10 paragraph 4, the stern tube bearing; paragraph 5, the rudder
11 bearing; and then paragraph 6 provides some information on the
12 main engine lube oil sump. Based on your review of that -- and I
13 would assume that this came from the *El Yunque* and you have no
14 personal knowledge as to whether it would be the same as what was
15 on *El Faro*.

16 A. Correct, correct.

17 Q. And more specific to this excerpt, would this be the
18 technical manual for the lube oil system or would this be a more
19 general operational manual that the company would want to get --
20 have on the vessel?

21 A. This is the operations manual and it covers a lot of topics.
22 It's not specific to just one topic.

23 Q. Okay. So this wasn't the manual -- would this be the manual
24 that the manufacturer of the lube oil system would provide to the
25 vessel or was this a more general manual that is compiled based on

1 the input from the several technical manuals?

2 A. This is a general manual with definite headings.

3 MR. WHITE: Thank you, Mr. Peterson. I have nothing further.

4 CAPT NEUBAUER: Mr. Peterson, I think we just have a few
5 final questions. Mr. Fawcett has a follow-up.

6 BY MR. FAWCETT:

7 Q. Mr. Peterson, you spent 85 percent of your time working on
8 the LNG project for TOTE in the time frame leading up to the
9 accident; is that correct?

10 A. I spent a lot of time on that project, yes.

11 MR. HALBERT: One second, please.

12 (Pause.)

13 THE WITNESS: Yeah. So as I testified before, it was --
14 there were, as with any project, peaks and valleys. There was a
15 time right there in September where I was spending a lot of time
16 on that LNG project because things were coming to a head. But
17 that didn't represent my entire job, though, my details.

18 BY MR. FAWCETT:

19 Q. Did you participate in executive meetings regarding the LNG
20 project, both for the new ships as well as conversion of the Orca
21 flagships?

22 A. Primarily for the Marlin Class.

23 Q. Were you aware of discussions in September of 2015 related to
24 delaying the Orca conversion project due to a cascading series of
25 events? And I will be introducing documents as exhibits between

1 executive managers of the company that talked about delaying the
2 conversion of the Orcas for a variety of reasons, including the
3 stern bearing problems with the Isla Bella.

4 A. The Isla Bella is not an -- I see what you're saying. No, I
5 was not.

6 CAPT NEUBAUER: Can you clarify? You said Orca Class.

7 MR. FAWCETT: Yes, sir.

8 BY MR. FAWCETT:

9 Q. The Orca Class, there were discussions in September, mid-
10 September, continuing through the month, about the discussions of
11 delaying or canceling the conversion of the Orca ships. Were you
12 aware of those discussions?

13 A. I was not aware of that conversation, no.

14 Q. Were you aware of the decision to reach out to the engine
15 manufacturer and, based on the contract, perhaps just store those
16 engines instead of performing that conversion at the time?

17 A. No. Like I said, I was mainly involved with the Marlin
18 fueling project.

19 Q. So changing gears a little bit, you mentioned -- you were
20 talking about lube oil levels and who was supposed to be looking
21 at those levels. Who performs audits of the engineers aboard the
22 *El Faro*? Or who performed?

23 A. Well, that was part of the regular audit process. The port
24 engineers also go on it and have a sheet they go through on a
25 regular basis. But I'm not sure where your -- I'm not sure where

1 your question is going.

2 Q. Yes, the engineering -- to determine the competency of
3 shipboard engineering operations, the audits that are conducted
4 internally, who performs those audits?

5 A. Well, the audits are arranged by Captain Lawrence as far as
6 -- and they can be internal or they can pull in somebody from the
7 outside.

8 Q. Coast Guard Exhibit 311, page 5, are the March 2014 and March
9 2015 audits of the vessel, 2014 by Captain Harry Roger; 2015,
10 Captain John Lawrence. The point is both are deck officers,
11 correct?

12 A. That's correct.

13 Q. Those audits, the list of audit items in both of those
14 documents, for brevity, I will state the audit items were provided
15 in advance. Is that typical?

16 A. Well, I believe they do work off some kind of list, yeah.

17 Q. So before the vessel is audited, the personnel on the vessel
18 know the subjects of what they're going to be audited on; is that
19 correct?

20 A. I have no knowledge of that.

21 Q. Now, the NTSB -- Mr. Young took a video of the internals of
22 the tank. In the discussion, in the ensuing line of questions,
23 was a discrepancy in what he observed versus the offset of the
24 bell-mouth in relation to the vessel's internal structure; is that
25 correct?

1 A. Yes.

2 Q. Why wouldn't the bell-mouth be positioned as contained in the
3 diagram or engineering diagrams?

4 A. I don't know.

5 CAPT NEUBAUER: Mr. Fawcett, I will make a note for the
6 record that the offset was one inch and the bell-mouth was hand-
7 measured by Mr. Young. I don't feel that, in my opinion, is a
8 discrepancy that the witness can testify to.

9 MR. FAWCETT: Thank you, Captain.

10 BY MR. FAWCETT:

11 Q. My final question is, the Polish ship riders who were on the
12 *El Faro*, the vast majority of them did not speak and understand
13 the English language. Prior to them stepping aboard the *El Faro*,
14 was there a discussion in the safety department or management on
15 how TOTE would accommodate their language deficiencies?

16 A. Not that I was involved in.

17 MR. FAWCETT: Thank you, sir.

18 BY CAPT NEUBAUER:

19 Q. Mr. Peterson, I just have one follow-up question from your
20 earlier testimony in regards to the scrapping of the *El Yunque*. I
21 can confirm that the Coast Guard does not order the scrapping of
22 vessels. It's a commercial decision. Is it your testimony that
23 the *El Yunque* was not scrapped, at least in part, due to safety
24 concerns that would have to be corrected with a substantial amount
25 of work to be done?

1 A. That's correct.

2 MR. HALBERT: Just a second, please.

3 (Pause.)

4 THE WITNESS: Going back, I wasn't aware of any.

5 BY CAPT NEUBAUER:

6 Q. Are you aware of a meeting that occurred between senior TOTE
7 executives and Rear Admiral Thomas at Coast Guard Headquarters to
8 discuss the scrapping of the *El Yunque*?

9 A. No, I wasn't.

10 CAPT NEUBAUER: Mr. Young?

11 MR. YOUNG: Thank you, Captain.

12 BY MR. YOUNG:

13 Q. Mr. Peterson, one last question. We've taken measurements on
14 *El Yunque* with regards to the position of the lube oil pump above
15 the deck plates all the way down to the bottom of the sump and
16 we've come up with a measurement of over 9 feet of lift that is
17 required. In your experience throughout the maritime industry,
18 are you aware of any improvements, industry wide, to reposition
19 the pump to yet a lower level closer to the fluid vents --

20 A. On some of the newer ships, they'll actually have a deep-well
21 submersed pump that will be right in the sump.

22 MR. YOUNG: Thank you.

23 CAPT NEUBAUER: Mr. Kucharski?

24 MR. KUCHARSKI: Yes, sir, Captain.

25 BY MR. KUCHARSKI:

1 Q. Mr. Peterson, just a few follow-on questions and one I didn't
2 ask you earlier. When you were port engineer on the Ponce Class
3 vessels, do you remember the amount of fuel that was carried
4 aboard the vessels leaving Jacksonville during the hurricane
5 season?

6 A. Captain, there was a time when I did have that, but I don't
7 remember now off the top of my head.

8 Q. Okay, no worries. A second question. You mentioned you took
9 some technical guidance from Totem Ocean Trailer Express in
10 Tacoma. And just for the benefit of the people here, Totem Ocean
11 Trailer Express is the Alaska operation, Tacoma to Alaska, is that
12 what that was?

13 A. That's correct. They are now known as TOTE Maritime Alaska.

14 Q. And who are those people, the names of those people that you
15 took your technical guidance from?

16 A. Phil Morrell was the vice president. Cliff Hill was the
17 director.

18 Q. And they were operating -- they were out in Tacoma operating
19 vessels up to Alaska, correct?

20 A. That's correct.

21 Q. And those were the Orca vessels at that time or were they
22 operating any of the Ponce Class vessels on the Alaska trade?

23 A. That's with the Orcas.

24 Q. So did they have any experience with the Ponce Class vessels,
25 operating them on the Puerto Rico trade, when they were giving you

1 technical advice?

2 A. Yeah, they had -- and I can step back and say that the *Great*
3 *Land* had been at the dock there. They would pull the *Great Land*
4 out during shipyard periods for the Orca Class ships. But yeah,
5 they had experience with those. And as far as the other people in
6 the office, you know, you had port engineers that they'd done
7 their whole time on those Ponce Class ships.

8 Q. The Ponce Class vessels -- and I want to be clear about this.
9 Ponce Class vessels, before they were converted to the Con-Ro
10 configuration, the ones out in Tacoma had a lot of experience.
11 The Plimsoll mark was raised 2 feet, the containers were put on
12 there. They had experience operating those vessels, specifically
13 in the Puerto Rico trade. The Ponce Class -- the *Great Land* was
14 never converted; is that correct?

15 A. That's correct. But it gets down to some real details as far
16 as with the Plimsoll marks and stuff. But as far as the port
17 engineer's standpoint working the ships, it's not uncommon for
18 companies to have a wide variety of ships and port engineers
19 handling whatever comes their way.

20 Q. When you were director of marine services, safety services, I
21 think you were asked about the auditing or some of the audit
22 procedures that were -- or maybe the ship knew about the audits,
23 as to what they will be audited in advance, and you said you'd
24 defer to Captain Lawrence on that. Just to be clear, Captain
25 Lawrence was a direct report to you at that time; is that correct?

1 A. That's right. He basically ran the SQE program.

2 Q. And you didn't discuss the SQE program, is it correct or no?

3 A. We had discussions.

4 Q. There was just something mentioned earlier about different
5 masters, Stith, Torres -- I forget the third one. Do you know the
6 sum total of master experience on those ships?

7 A. I don't have that on the top of my head, no.

8 Q. How about heavy weather experience, do you know what any of
9 their heavy weather experience is?

10 A. No.

11 MR. KUCHARSKI: No further questions. Thank you.

12 CAPT NEUBAUER: Are there any final questions for
13 Mr. Peterson at this time?

14 MR. REID: Just a couple, sir.

15 BY MR. REID:

16 Q. Mr. Peterson, the *El Faro*, what was its previous name?

17 A. Northern Lights.

18 Q. And where did it operate?

19 A. It was on the Alaska run.

20 Q. And so is it fair to say that Phil Morrell and Cliff Hill
21 were fairly familiar with the *El Faro* through that operation?

22 A. Yes, sir.

23 MR. REID: Thank you.

24 CAPT NEUBAUER: Are there any final questions at this time?

25 MR. BENNETT: Yes, Captain, I have one.

1 CAPT NEUBAUER: Mrs. Davidson.

2 BY MR. BENNETT:

3 Q. Mr. Peterson, I think Mr. Kucharski just asked about captains
4 and experience with heavy weather and I want to read a quote. It
5 comes from Mr. Brian Curtis, Director of the Office of Marine
6 Safety for the National Transportation Safety Board. I think it's
7 Mr. Kucharski's boss and he gave an interview to Trade Winds and
8 this is what he quoted: "Ships do transit through hurricanes."
9 Do you agree with that?

10 A. Yes, sir.

11 MR. BENNETT: No further questions.

12 CAPT NEUBAUER: Are there any final questions at this time?

13 MR. WHITE: No questions, sir.

14 MR. REID: No questions, sir.

15 CAPT NEUBAUER: Mr. Peterson, you are now released as a
16 witness at this Marine Board investigation. Thank you for your
17 testimony over two separate sessions. And also, I want to
18 personally thank you for your time in assisting the Marine Board
19 investigation over the course of the last 16 months. I noticed
20 you were very responsive to requests for evidence and I would see
21 things posting after hours on the weekends and that was
22 appreciated. If I were to determine that this Board needs
23 additional information from you, I will contact you through your
24 counsel. If you have any questions about this investigation, you
25 may contact the Marine Board reporter, Lieutenant Commander Damian

1 Yemma.

2 (Witness excused.)

3 CAPT NEUBAUER: And at this time, I'd like to ask if any of
4 the PIIs have any issues with the testimony that we just received,
5 which is relevant in this case, since there was prior NTSB
6 interviews and MBI testimony.

7 MR. REID: No issues, sir.

8 MR. BENNETT: No. And I do echo your compliments to
9 Mr. Peterson. Thank you for all your cooperation, sir.

10 MR. WHITE: No objections.

11 MR. YOUNG: On behalf of the NTSB, as the party coordinator,
12 we appreciate your endless efforts to assist us. Thank you.

13 CAPT NEUBAUER: Before we adjourn, I'd like to check with
14 TOTE. Can we start with Mr. Neeson after lunch?

15 MR. REID: Not a problem, sir.

16 CAPT NEUBAUER: The hearing will now adjourn and reconvene at
17 1:45.

18 (Whereupon, at 1:00 p.m., a lunch recess was taken.)

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A F T E R N O O N S E S S I O N

(1:49 p.m.)

CAPT NEUBAUER: The hearing is now back in session.

Before we begin, Mr. Reid, did you want to make a clarification for the record?

MR. REID: Yes, sir, just to clarify. As Mr. Peterson testified, he testified about the reason why the *El Yunque* was scrapped, or some of the reasons why, and Mr. Peterson made it clear that he himself was not involved in the decision making to scrap the vessel. It's just his understanding and he gave you what he thought his understanding was with respect to the reason and it involved the Orcas and things like that in this testimony. During the break, sitting down with Mr. Peterson, we realized that that was not the correct statement. So his understanding was not correct. I just want to make sure that that's corrected for the record.

CAPT NEUBAUER: Yes, sir. Thank you.

At this time we will hear testimony from Mr. Tim Neeson, TOTE Services port engineer.

LCDR YEMMA: Please raise your right hand, sir.

(Whereupon,

TIM NEESON

was called as a witness, and having been previously duly sworn, testified as follows:)

LCDR YEMMA: Be seated. You are still a port engineer at

1 TOTE services?

2 THE WITNESS: Yes, I am.

3 LCDR YEMMA: Thank you, sir. Mr. Fawcett will begin your
4 questioning.

5 BY MR. FAWCETT:

6 Q. Good afternoon, Mr. Neeson. Thank you for being here again.
7 We appreciate your appearance here today.

8 A. Good afternoon.

9 Q. So looking at the weeks -- and all of my questions are framed
10 in the time before the *El Faro* accident. So looking at the weeks
11 leading up to the *El Faro* accident, how busy were your day-to-day
12 activities?

13 A. Very busy with a conversion.

14 Q. I'll apologize for some of these questions. We missed some
15 details in your earlier testimony regarding oversight of Captain
16 Davidson in your position as port engineer. So before I ask you a
17 couple of questions, did you maintain any files on any of the
18 senior officers of the Ponce Class ships since you evaluated them?

19 A. No, I just did the evaluations. I didn't keep any personnel
20 files, no.

21 Q. The evaluation form that was produced for Captain Davidson
22 came from your office and what I mean is I'm not talking just
23 about personnel files. Did you maintain any files on the senior
24 officers, including personnel files or other files?

25 A. No.

1 Q. Now, we asked a question of you in previous testimony about
2 Mr. Fisker-Anderson made a statement about Captain Davidson and
3 you said that you didn't make the statement. So there was some
4 information that was conveyed by Mr. Fisker-Anderson to TOTE
5 executives, a statement that Captain Davidson was a state room
6 captain. Did you talk to Mr. Fisker-Anderson about Captain
7 Davidson's leadership style or management style?

8 A. Yes, I believe I did.

9 Q. Could you talk about any concerns raised by ship's personnel
10 about Captain Davidson's leadership or management style?

11 A. There was only a concern that he didn't seem to be on deck as
12 much as other captains, but nothing that would raise a red flag.

13 Q. And who told you that?

14 A. Well, I can't remember specifically, but we talked to all the
15 crew members, the chiefs, all the engineers, and the mates. So it
16 could've been any one of them.

17 Q. And with your busy schedule you took time to report this to
18 Mr. Fisker-Anderson. Is he your supervisor?

19 A. He was a director at that time, I believe, so he would be my
20 supervisor.

21 Q. Just for clarity, you said he would be your supervisor?

22 A. I think he was my supervisor at that time, as a director. As
23 a fellow port engineer, he would not be my supervisor.

24 Q. Did you ever report these concerns to Ms. Clark, the crewing
25 manager?

1 A. No.

2 Q. Leading up to the accident, at any time were you aware of
3 Captain Davidson's status with regard to his being on a position
4 on the Marlins, the new construction ships?

5 A. Yes.

6 Q. What was his status?

7 A. He was passed over for different candidates. He talked to me
8 at length about that, why he was passed over and why he should not
9 have been passed over.

10 Q. Could you elaborate on those conversations?

11 A. Well, he said he had the years of experience and a good
12 record and much more experience on the run and just more sea time.
13 Just a more experienced master than the candidates.

14 Q. So those are the reasons for why he should be selected. Did
15 he talk about any thoughts about why he wasn't selected?

16 A. Well, he didn't know the exact answer but no, he didn't.

17 Q. So having been around for a while in the shipping industry
18 and around the docks, do you have any idea what happens if the *El*
19 *Faro* is delayed in reaching San Juan in terms of what the
20 repercussions are in terms of how it impacts operations or the
21 bottom-line costs?

22 A. Well, I'm not really involved in that section of it, but
23 there's always a cost involved in any delay. But the ship gets
24 there when they get there. There's always weather delays, there's
25 cargo delays, so it's not a driving factor to make that schedule

1 at any cost. So safety is always a concern. So they could be
2 delayed leaving Jacksonville, where they're going to be late
3 anyways, so it doesn't matter. I mean, they'll make the best
4 appropriate speed to get there, but they get there when they get
5 there.

6 Q. So in the month of September did you notice any pressure on
7 the schedule? In other words, you had barges in August that were
8 delayed reaching San Juan and you had one of the truck-and-tows
9 have a mechanical problem. Did you note any pressure on the
10 schedule to be on time for delivery in San Juan?

11 A. No.

12 MR. FAWCETT: I'd like to turn your attention to the *El Faro*
13 VDR transcript, page 266. Correction, VDR transcript Exhibit 266,
14 pages 126 through 127. And I'm going to ask you a couple of
15 questions, but one of the things I would like -- one of the points
16 I'd like to make about the transcript is when you look at the
17 transcript, it is a flat, two-dimensional object. Most of the
18 investigators for this investigation have heard the transcript and
19 I do not want to impart any bias on the contents of the
20 transcript. It's difficult for me to read it, so I'm going to ask
21 your attorney if he will read time 14:05 through 14:06:03. If you
22 could do that, sir. And the start time, sir, is 14:05:33 and it
23 starts with the lines "I hope."

24 MR. KING: Sure. And when I see parentheses I will mention
25 that because that indicates either lack of agreement or difficulty

1 transcribing the audio.

2 "I hope (we get to/that it doesn't) take the Old Bahama
3 Channel back." Star, reading omission. The second mate: "does
4 the company (want/give) permission now (or)" omission. Captain:
5 "(from) management." Second mate: "'cause it used to be just
6 we're doing it. you people are sitting in your office behind a
7 desk and we're out here -- we're doing it." Omission. "yeah."
8 Captain: "well I'm extending that professional courtesy because
9 it does add 160 nautical miles to the (distance)." Second mate:
10 "yeah but it also saves on the ship's stress -- stress of the
11 ship." Captain: "that's why you know I just said hey you know --
12 I would like to take this going northbound. I'll wait for your
13 reply. I don't think they'll say no. I gave them a good reason
14 why because if you should follow this (down) then look what it
15 does on the third -- fourth and fifth. and that's right where
16 we're going. on the quarter." And then there's a bracket which
17 is an interjection by the transcribers and it says "[during the
18 time the captain was speaking, the second mate interjects, 'yeah'
19 and a 'yeah I saw that.']"

20 MR. FAWCETT: That's fine, sir.

21 By MR. FAWCETT:

22 Q. So that's at 14:06 and as someone who would evaluate Captain
23 Davidson, was he adhering to company policy in that he was
24 requesting permission to take a route?

25 A. No, he was not requesting permission, he was going to notify

1 the office of his intentions. He does not need permission from
2 the office to go an alternate route.

3 Q. Later on, that word professional courtesy comes up again.
4 Did you or do you have knowledge of anybody speaking to Captain
5 Davidson after the August deviation voyage, instructing him how he
6 was to communicate with the company with regard to the routes he
7 took?

8 A. I wasn't involved in that conversation, no.

9 Q. Are you aware of any conversation like that?

10 A. No.

11 CAPT NEUBAUER: Mr. Neeson, I have a follow-up question on
12 this VDR --

13 THE WITNESS: Sure.

14 CAPT NEUBAUER: -- question. Looking at the statement from
15 the master, it says "I don't think they'll say no." Does that
16 imply to you that the company has some say in the choice of that
17 voyage?

18 THE WITNESS: No, I don't know why he said that.

19 CAPT NEUBAUER: Mr. Fawcett.

20 BY MR. FAWCETT:

21 Q. If you'll take a moment, sir, and turn to Coast Guard Exhibit
22 1. Commander Yemma will put it up on the screen. One-zero-one.
23 This is an email correspondence in response to Captain Davidson's
24 question he sent ashore and it's from Jim Fisker-Anderson, date:
25 9/30, 3:45 p.m. Pardon me, it's Exhibit 4. I'm sorry. It should

1 be at the top of the page. In this "Re: *El Faro* vessel update,
2 Hurricane Joaquin, Captain Mike, diversion request. Heads-up
3 through Old Bahama Channel. Understood and authorized. Thank you
4 for the kind regards." The word authorized, does it convey to you
5 the fact that he has given permission for that?

6 A. Well, the way it's written it sounds that way, but they don't
7 need to be authorized to do that. The captain has that authority
8 to do that.

9 MR. FAWCETT: That's all the questions I have, sir. Thank
10 you very much.

11 CAPT NEUBAUER: Mr. Neeson, just one additional follow-up
12 question. Did you provide Captain Davidson with any feedback on
13 why he wasn't selected during your conversations with him?

14 THE WITNESS: No, I had no input and no say in the selection.

15 CAPT NEUBAUER: Sorry, one additional question. While you
16 were talking to Captain Davidson, did you ever discuss the voyage
17 where he diverted to avoid Tropical Storm Erika?

18 THE WITNESS: No.

19 CAPT NEUBAUER: Commander Venturella.

20 CDR VENTURELLA: Thank you, Captain.

21 BY CDR VENTURELLA:

22 Q. Good afternoon, Mr. Neeson. Sir, I'll have one short line of
23 questioning, a brief discussion of some potential flooding
24 scenarios based on the voice data recorder transcript, some bilge
25 system questions, and a discussion of the second deck ventilation

1 openings aboard *El Faro*. But first, I want to address one topic
2 from the previous testimony. Could you turn your attention to
3 Exhibit 387? Exhibit 387 is the engineer logs from July 20th and
4 21st for the *El Faro*. Specifically, if you could go to the 20th
5 first and I'd like you to comment on the 3 inches lost from the
6 sump at 1200 that resulted in a 350-gallon addition the next day.
7 Is that something you're aware of and how that occurred?

8 A. No, I'm not aware of that and I was never informed.

9 Q. Is that something you could possibly explain a reason for,
10 and would it normally be logged?

11 A. Well, the loss of lube oil like that would be a lube oil
12 purifier problem and probably the watch didn't catch it
13 immediately and they probably dumped a lot of oil. That's the
14 only way you could lose lube oil that quick.

15 Q. Would this be an operator error or a maintenance issue or do
16 you have any idea at all?

17 A. Well, it could be a mechanical issue. If you lose the seal
18 in the purifier, it starts dumping the oil into the sludge tank
19 and if the watch didn't catch it right away, you could lose a lot
20 of oil that way. So that would be my opinion on that, but that's
21 the probable cause.

22 Q. Is that something you would've expected to be told about?

23 A. No.

24 Q. Okay, I'll move on from that. Sir, are there any means
25 you're aware of to disable the bilge alarm system through the use

1 of a key hanging on a string or anything like that?

2 A. Not that I'm aware of, no, but you can disable any system by
3 shutting the power off to it.

4 Q. But there's no simple means to disable it, that you're aware
5 of?

6 A. No.

7 Q. Did you ever see any element of the bilge system shut off or
8 malfunction in any way during your time with the *El Faro*?

9 A. No.

10 Q. Sir, do you have an opinion on how much water it would take
11 in the 3 Cargo Hold, under the conditions the *El Faro* departed in,
12 to set the bilge alarm off?

13 A. I would have to use a wild estimation, but with the list and
14 the trim, probably 500 or 1,000 gallons of water, possibly.

15 Q. When they departed, they didn't have a list on yet, so I
16 guess what I mean is in the early stages of flooding. Let's
17 assume the scuttle was a source of flooding and if the scuttle
18 started taking -- they started taking on water through the
19 scuttle.

20 A. Well, if the trim is -- or the list is practically zero, it
21 wouldn't take much water at all. The rose box probably holds 50
22 gallons, so 50 gallons of water can set it off.

23 Q. Can you tell us if the *El Faro*'s emergency fire pumps, which
24 each have suction piping, was at risk from a potential strike from
25 Hold 3 cargo, in your opinion?

1 A. Not normally, no.

2 Q. Have you thought about a scenario in which it could be at
3 risk?

4 A. Well, according to the transcripts, there were cars floating
5 in Number 3. So if they're floating around, potentially one could
6 work its way into that corner and possibly cause some damage.

7 Q. Sir, when was the last time the emergency fire main piping
8 was internally examined and the sea chest valve pulled for
9 inspection?

10 A. A sea chest valve would be pulled during a shipyard period.
11 As far as internal examination of the piping, I know of none.

12 Q. Did you have any way of gauging the condition of the pipe in
13 that area?

14 A. No. You could have a gauger come in and do ultrasounds on it
15 and get thicknesses that way, yes.

16 Q. Did that gauging ever take place or was there a visual exam
17 or anything that you can speak to as far as the condition of that
18 section of pipe?

19 A. Not during my time as port engineer with that ship.

20 Q. What was the overall condition of the fire main piping in the
21 cargo hold? Did you ever have a leak or were there any required
22 repairs due to wastage at any point?

23 A. No, sir.

24 Q. Based on your review of the voice data recorder transcript,
25 did you see the discussion about the fire main being potentially

1 ruptured?

2 A. Yes, I did.

3 Q. Did you form an opinion as to whether that was a valid
4 possibility or did you think that unlikely?

5 A. That could be a valid possibility, yes.

6 Q. Have you ever tested, or seen tested, the large cargo hold
7 watertight doors and can you describe any test you did witness?

8 A. I haven't done any on the *El Faro*. I've seen them test on
9 the *El Yunque*, where they were doing an air test. They blow air
10 around the gaskets and see if there's any leakage and then they
11 find the leaks and they fix them.

12 Q. Was that part of a scheduled maintenance and can you speak to
13 its frequency?

14 A. That was part of the maintenance, but I don't know the exact
15 cycle of when it's done. Every 6 months or every month, I don't
16 know.

17 Q. Was there ever any concern about the integrity of the
18 watertight door between Cargo Hold 3 and 2A?

19 A. No.

20 Q. During Chief Gay's testimony, he mentioned that he did have
21 some voyage planning involvement from Mr. Peterson. Mr. Peterson
22 explained that well and that it was just from the engineering
23 side. Did you have that type of involvement with the chief
24 engineer on *El Faro*?

25 A. Yes.

1 Q. Can you describe what those conversations would be about?

2 A. Well, we would discuss any repairs that were due, upcoming
3 repairs or upcoming maintenances, and then if it needed a vendor,
4 we'd go ahead and arrange for vendors, if assistance was needed.
5 So we would do that every week.

6 Q. Do you recall any specifics about your last communication
7 with the chief engineer for the *El Faro*?

8 A. No, everything was running good, as I remember.

9 Q. Sir, did you ever hear any safety complaints from the
10 officers or the crew?

11 A. No.

12 Q. Did you typically ride the *El Faro*?

13 A. I never rode the ship.

14 Q. Have you observed a drill on a ship, perhaps shore side?

15 A. There's COI and they do the boat drill and the fire drill,
16 emergency drill. Yes, I have observed that.

17 Q. Do you recall any specifics about the drills you witnessed in
18 terms of the training, any elements you can remember?

19 A. Well, it was a standard fireboat drill. The crew were
20 mustered where they were supposed to and they went to their
21 stations. They had their lifejackets, survival suits, and did a
22 scenario emergency drill like that. It was fire in the galley, I
23 believe. And then they did the boat drill. They powered the
24 boats at the embarkation deck and everything was fine. They all
25 performed very well.

1 Q. During the drill you witnessed, did you happen to notice if
2 anyone donned any lifesaving gear like the emergency or
3 lifejackets?

4 A. I don't recall if they did at that particular drill, but I
5 have seen them roll them out and put them on and make sure the
6 zippers were working and that they fit correctly. So I have seen
7 that by the crew, yes.

8 Q. Was that with any members of the current crew, the crew of
9 the *El Faro* at the time of the departure voyage?

10 A. I don't remember that.

11 Q. Do you recall any discussion about launching life rafts?

12 A. No, I don't. But during the boat drills, they do review
13 that.

14 Q. Have you ever attended a safety meeting on board the *El Faro*?

15 A. No.

16 Q. What was your overall perception of the safety culture on
17 board *El Faro*?

18 A. I thought it was very good. You know, safety first actually
19 works, they do pay attention. They have their goggles, face
20 shields, gloves, harnesses were working well. They use those.
21 They did a good job.

22 Q. Sir, when talking to Mr. Peterson, we showed him a video of
23 the second deck. Were you here during that?

24 A. Yes.

25 Q. I'd like to ask you a couple of questions about it. Do you

1 need me to show it again?

2 A. No.

3 Q. Sir, in the video, we saw some racking bulkheads surrounding
4 different things and we're trying to discover what's inside the
5 racking bulkheads on the second deck of *El Faro*, due to their
6 differences from what we've seen on *El Yunque*. Can you describe
7 what is inside the racking bulkhead, in particular focusing at the
8 exhaust ventilation between Frames 159 and 162 at the aft portion
9 of the 3 Hold?

10 A. My recollection with the *El Faro* was they have a watertight
11 manhole access on the outside. Facing forward you'd enter and
12 there would be another smaller man access to get into the vent
13 trunks where there would be -- as I recall, it's just a fire
14 screen. I don't recall if there was a damper there or not. I
15 just don't remember that part of it. But you have two man
16 accesses to get into that trunk.

17 Q. In the video, it appeared to be an open access into the
18 trunk. Did you see that?

19 A. Was that one just forward of Number 5 Hold there or a ramp?

20 Q. Yes. If you'd like, I can show it again.

21 A. Just the racking trunks are not a watertight compartment and
22 they're just there for structure. So they can be left open for
23 access for maintenance, but I believe they were screened over,
24 like I say, for stowaways. I think all the Ponce Class vessels
25 that I saw had screening over those man accesses, at this time.

1 Q. Sir, I just want to make sure I'm getting the exact details
2 right. The access opening from the outside of that exhaust trunk,
3 is it a bolted cover or is it a screened-over opening?

4 MR. REID: Sir, can I suggest to put the video up so he's
5 looking at what you're thinking about?

6 CDR VENTURELLA: Yes. Lieutenant Commander Yemma, can you
7 bring up Exhibit 380 on the projector and put it -- I think it's
8 around one minute and 50 seconds. We want to see the exhaust
9 trunk image.

10 (Pause.)

11 CDR VENTURELLA: Go to about 2 minutes.

12 (Pause.)

13 BY CDR VENTURELLA:

14 Q. Do you see that, sir? Okay, can you talk to what we're
15 looking at there?

16 A. Well, you have the racking trunk access. There's no
17 screening on it, but it's not necessary to have a screen. When
18 you go inside, there would be another watertight door for the
19 ventilation part of that trunk, as I recall.

20 Q. Do you recall if the fire damper is behind a floor to
21 overhead bulkhead or is it similar to the *El Yunque*, in that it
22 has a 39-inch plate somewhere?

23 A. I never entered these trunks on the *El Faro*, so I can't tell
24 you that.

25 Q. So have you seen a fire damper before?

1 A. No, not before I went on the *El Yunque*.

2 CDR VENTURELLA: No further questions, Captain.

3 CAPT NEUBAUER: At this time we'll go to the NTSB.

4 Mr. Young.

5 MR. YOUNG: Thank you, Captain.

6 BY MR. YOUNG:

7 Q. Thank you, Mr. Neeson. I just have three areas of questions.
8 The first is operation, the second is cargo hold ventilation, and
9 the last is the bilge system. In your time as a port engineer,
10 have you ever heard any lube oil pressure issues underway for any
11 of the Ponce Class vessels?

12 A. No.

13 Q. As a port engineer, did you ever provide troubleshooting or
14 service for any sort of lube oil issue for *El Faro*?

15 A. No.

16 Q. Were you aware of any company guidance for emergency
17 operations regarding lube oil casualty --

18 A. I've never seen any paperwork on that, no.

19 Q. As a port engineer, were you ever involved with creating or
20 updating the policies and procedures in the SMS system that
21 pertain to engineering guidance?

22 A. No.

23 Q. With regards to operations and discussing soot blowing at
24 sea, based on your engineering experience, can you please describe
25 the effect of soot blowing, the effect it has on the power plant,

1 as well as vessel speed?

2 Q. Soot-blowing uses a fair amount of steam to blow the soot off
3 the tubes, so they have to reduce speed in order to maintain
4 enough pressure to blow tubes. So you have to slow the main
5 engine down and normally, depending on the weather, it would
6 change course a little bit to keep the soot from blowing on top of
7 the ship, so it would blow off to the side and not dirty the ship.
8 So they could change course and it's an option.

9 But they would have to slow down a little bit, you lose a
10 little bit of -- a couple or two or three turns to blow tubes.
11 You wouldn't have to take the motors off the line, you just reduce
12 the main engine speed a little bit and that will keep your steam
13 flow the same, basically.

14 Q. Is there any risk in regards to operations from blowing
15 tubes?

16 A. No, that's a normal thing.

17 Q. Are there any procedures or engineering policies regarding
18 blowing tubes that you're aware of?

19 A. No, not that I'm aware of. It's a normal operation which
20 could -- may be in the operating manual. I'm not sure.

21 Q. Thank you. Switching to cargo hold ventilation, were you
22 aware if the ventilation fans were operational and running while
23 this vessel was at sea?

24 A. I believe they were, but I can't say for sure. Depending on
25 whether they were set up for storms or not, they would secure it

1 for a storm, stormy weather, I believe.

2 Q. But typically when a vessel is at sea, the cargo fans are
3 running; is that correct?

4 A. I believe so, but I can't verify that.

5 Q. Was there any guidance from the company regarding the inside
6 exhaust fan operation and damper positioning at sea?

7 A. Not that I'm aware of.

8 Q. Thank you. The last round of questions, I'd like to discuss
9 the bilge system. We understand that the bilge system was either
10 updated or modified a number of years ago. Are you familiar with
11 the installation that occurred on *El Faro* of the bilge alarm
12 system?

13 A. Yes. I wasn't there for the installation, but I am familiar
14 with it, yes.

15 Q. Can you please describe the bilge system and just talk to how
16 the ball is elevated and how it activates the alarm and what the
17 engineers would see and hear in the event of a bilge alarm
18 situation?

19 A. In each cargo hold, the port and starboard, there would be a
20 rose box, which is a water collection area. And right at the
21 screening level is a float switch, a little stainless steel ball,
22 and if the level got above the rose box, it would float the ball
23 and it would alarm after 6 seconds of flotation and they would get
24 alarmed in the engine room and they have an annunciator panel
25 which would show, by indicator lights, which cargo hold had an

1 alarm, so they could know, port or starboard, which cargo hold
2 they were having water in the bilge, at which time they would
3 acknowledge that and then pump out that rose box.

4 Q. So to be clear, a rose box is located underneath the tank-top
5 level, but the bilge float is elevated a certain distance above
6 the tank top, correct?

7 A. Not on the *El Faro*. I think they were pretty much level with
8 the deck, right at the screen level of the rose box. So it would
9 be probably a foot from the bottom of the rose box but below the
10 main -- the deck plates.

11 Q. And AMOS, the maintenance system, requires the bilge -- cargo
12 bilge alarms to be tested monthly. Could you please explain how
13 those monthly tests are conducted?

14 A. Normally, a mate or an AB would go down in every cargo hold,
15 reach down and lift the ball and hold it for 6 seconds and then we
16 get an alarm in the engine room. And you should have a radio and
17 they would send them to the next cargo hold and go down the line
18 until they were all tested. And there's some in the engine room
19 where they would test them in the engine room, also.

20 Q. And during that monthly test, are you aware that the pump is
21 actually operated to remove any water from any of these rose
22 boxes?

23 A. No. Normally, the rose boxes would be empty, so there would
24 be no need to run the pump. But if they did have water in them at
25 one time, they would pump it out. So if the pumps were running,

1 as far as I know.

2 Q. Once the bilge alarm is received in the engine room, there
3 would be an indicating light to indicate that a certain port or
4 starboard cargo hold had been affected?

5 A. Yes.

6 Q. Can you please explain about the audio alarm?

7 A. There would be a buzzer on that annunciator panel. I believe
8 they have a buzzer on there. It would buzz and as soon as you hit
9 the acknowledge button, it would quiet the alarm, but the light
10 would stay on until the water was pumped down and the float switch
11 dropped to the bottom and cleared the alarm.

12 Q. And were there any other locations, other than the
13 maneuvering platform in the engine room, that were able to hear
14 the bilge alarm?

15 A. No.

16 Q. Have you ever witnessed any cargo hold bilge testing?

17 A. Yes, definitely so, when the ship was in layover.

18 Q. And to your best estimation, can you tell us about how high
19 you do think the ball is above the tank top?

20 A. On the *El Faro*, it's right at the tank-top level. *El*
21 *Yunque's* were elevated for other reasons, for towing reasons.
22 Normal operation of the ball would be right at the deck plate.
23 Probably just raises 2 or 3 inches to activate it.

24 MR. YOUNG: All right, thank you very much. Mr. Kucharski?
25 Thank you.

1 BY MR. KUCHARSKI:

2 Q. Hi, Mr. Neeson. I have some follow-on questions first that
3 Mr. Young asked about and this involves the ventilation fans in
4 the cargo holds. As port engineer, did you provide any guidance
5 to the vessel's officers as far as their operation of opening and
6 closing them at sea?

7 A. No, that would be the captain.

8 Q. Do you know what the LL-11-D is?

9 A. No.

10 Q. Please look at Exhibit 352, and it's detail 5A. That has,
11 towards the right-hand side of the diagram, it's a long stretching
12 one, if you will, and 5A is at the very bottom. It shows a fire
13 damper. I believe it says W -- well, it says W. T. damper.

14 A. We have the wrong exhibit up.

15 MR. REID: 352, is that what you said, sir?

16 MR. KUCHARSKI: Yes.

17 MR. KING: 352 appears to be the lube oil system.

18 MR. KUCHARSKI: Try -- sorry about that -- 203, ventilation
19 air holds, 283. Sorry.

20 BY MR. KUCHARSKI:

21 Q. And the question is, at the bottom there, it says it's
22 watertight. Do you have any idea why it says it's watertight on
23 there?

24 A. I believe there's a gasket that runs around the perimeter of
25 the damper so when it is closed, it's watertight.

1 Q. And did you ever see any gaskets ordered for that?

2 A. No, I have not.

3 Q. And we'll finish with that -- so I believe that Mr. Young,
4 his question about AMOS, the planned maintenance and preventive
5 maintenance system. Are you familiar with that system?

6 A. Yes.

7 Q. What was your role as port engineer, what was your
8 involvement with AMOS?

9 A. To oversee the ship's maintenance and I used it for creating
10 work orders.

11 Q. So when you say oversee, you reviewed it to see that
12 maintenance was being done, inspections or tests, whatever it
13 would call for in AMOS?

14 A. Yes.

15 Q. So the watertight doors, all the watertight doors on the
16 vessel, were they captured in AMOS?

17 A. That I don't know.

18 Q. And would you know if the scuttles, any maintenance on the
19 scuttles are captured in there?

20 A. Well, if there was maintenance, then they would be entered in
21 the AMOS by the mate, so they should be in there.

22 Q. Okay. But the scuttles themselves, do you know if there is
23 actually a planned maintenance system, an inspection or repairs,
24 whatever they need to the scuttles?

25 A. Well, I know they do have a regular schedule of reviewing the

1 gasketing on all your watertight doors and scuttles. So it should
2 be included, yes.

3 Q. I'll continue with AMOS and then I'll come back to the
4 scuttles. Do you know if the anemometer, the anemometers were
5 captured in AMOS?

6 A. I don't believe they were.

7 Q. Do you know if any of the fixed securing devices, like the
8 D-rings, they were captured in AMOS?

9 A. No.

10 Q. Do you have any idea of the methodology of what was chosen to
11 go on AMOS and what was there and particularly what was chosen?

12 A. Well, I know there's a critical equipment section in AMOS and
13 then there's auxiliary equipment and I don't know who was involved
14 in the actual setup of the system.

15 Q. So it would be more critical equipment and auxiliary type of
16 equipment that would be covered on AMOS?

17 A. Yes.

18 Q. Please look at Exhibit 344. Let's start off on page 3,
19 please. So do you see the can opener, electric, and the coffee
20 makers on there? Do you see those?

21 A. Yes.

22 Q. So those would be considered critical equipment?

23 A. Like I said, I didn't set the system up.

24 Q. And page 45. Let me know when you're on 45, please.

25 A. Go ahead.

1 Q. The stair stepper is on there, too.

2 A. This is a components list, but it doesn't say critical
3 components list.

4 Q. Okay. Is there maintenance being done or inspection on the
5 stair stepper? Why would it be included in there?

6 A. A very good question, sir.

7 Q. Let's go back to the scuttles, please. You mentioned that it
8 would somehow be captured in the planned maintenance system, but
9 would you look at Exhibit 335?

10 MR. KUCHARSKI: Commander Yemma, please pull that up.

11 BY MR. KUCHARSKI:

12 Q. And this is -- I believe the title is *El Faro* copy of deck
13 work log. Do you see it?

14 A. Yes, I see it. Yes.

15 Q. Sir, do you see it?

16 A. Yes.

17 Q. And this has the -- I haven't reviewed every page of it, but
18 it looks like it captures a lot of the maintenance, deck
19 department maintenance on there. Have you ever seen this before?

20 A. No, I never reviewed it. I know of it, but I never actually
21 went through it.

22 Q. So the items that are not -- I'm just trying to get my arms
23 around the repairs that are done on deck and maintenance. As port
24 engineer, was that part of your duty to make sure that the
25 maintenance was done, and the deck department, also, the

1 maintenance on the vessel?

2 A. Yes.

3 Q. Please look at page -- we're going to look at pages 22, 23,
4 and 24. And kindly let me know when you get there. The dates I'm
5 looking at are 12/18 and 12/20. Those are on page 22.

6 A. Go ahead.

7 MR. REID: Excuse me, sir. What exhibit is that? You were
8 at Exhibit 330?

9 MR. KUCHARSKI: Sorry. Yes, sir, 335. And it's pages --
10 we're going to concentrate on 22, 23, and 24. We'll start out
11 with 22 and the date is 12/18.

12 MR. REID: Our exhibit only goes up to page 10 on that
13 exhibit.

14 CAPT NEUBAUER: It would be a good point for a recess. The
15 hearing will recess and reconvene at 2:45.

16 (Off the record at 2:39 p.m.)

17 (On the record at 2:49 p.m.)

18 CAPT NEUBAUER: The hearing is now back in session.
19 We'll continue on with the questioning from Mr. Kucharski.

20 MR. KUCHARSKI: Thank you, Captain.

21 BY MR. KUCHARSKI:

22 Q. Thank you again, Mr. Neeson. So page 22, if you would, and
23 on 12/18 and 12/20, I know you said you haven't viewed this, but
24 as you said, you know, you're the port engineer and repairs
25 following your overload purview. On the 18th, it says continue

1 repairs on deck scuttles and repair watertight doors. And then on
2 the 20th I see the same entry. Do you see those? And I saw it
3 again on 1/3 and that's on page 23. And do you see it there, too?

4 A. Yes.

5 Q. Okay.

6 A. Yes.

7 Q. Also on the 24th and -- I'm sorry, on the 10th, the same
8 entry on the 9th and it looks like an ABS test. But leading up to
9 that ABS test -- first of all, were you there for that ABS testing
10 on the watertight doors?

11 A. I believe I was.

12 Q. Okay. And do you know what repairs you think they would've
13 been doing to the scuttles and the watertight doors? Do you have
14 any idea?

15 A. Well, generally, it would be repair gasket material that was
16 questionable. On occasion, one of the dogs on the scuttles and
17 the hand wheels. So they would make sure the linkages were
18 working correctly.

19 Q. So this was a regular program they went through to repair and
20 inspect?

21 A. Yes.

22 Q. This record goes from May of 2014, I think, through September
23 of 2015, right up to before the vessel was lost. I couldn't find
24 any repairs to the scuttles or maintenance being done on them or
25 the watertight doors, except for those entries.

1 A. Well, they may never have needed it. I mean, if the gaskets
2 are in good condition, there's no need to repair them.

3 Q. Okay. And they would continue to go ahead and inspect them?
4 I didn't see anything about inspecting scuttles or doors. That's
5 the only thing I saw was the actual repairs for those dates and
6 the notation of the ABS inspection on 1/9.

7 A. Well, you know, it's a record that also shows the chief mate
8 making rounds of the cargo holds. So when he makes those rounds,
9 he checks the watertight doors and the scuttles. So that's part
10 of his routine inspection.

11 Q. And how would they check the gaskets, would they do any water
12 tests on them? Would they do a chalk test on them? They do what?

13 A. Well, normally, they would just do a visual inspection,
14 unless they saw a crack in the rubber or a split or something like
15 that.

16 Q. And I'd just like to make sure. The large watertight doors
17 to the cargo doors where the trailers drove through, that would've
18 been the same procedure to go up -- does that gasket go from
19 basically the sill?

20 A. The gasket goes all around, top to bottom.

21 Q. So what do they do? Do they take a ladder? Have you ever
22 seen this, do they go up 18-foot or whatever that is to get a
23 trailer through there and inspect that visually at 18 feet?

24 A. Yes, they do. And I've also seen them do a drop test where
25 they'll drop the edge and close the door and see where the contact

1 points are.

2 Q. The talk-back system. Are you familiar with the talk-back
3 system that was up on the bridge?

4 A. No.

5 Q. So I guess you wouldn't know if it's captured in AMOS?

6 A. No.

7 Q. Did you listen -- you mentioned you -- sorry. Did you look
8 at the VDR transcript? Did you read through that?

9 A. Yes, I did.

10 Q. Did you notice if there was any mention of the talk-back
11 system in there?

12 A. No, I don't recall.

13 Q. Do you know if the talk-back system is a class requirement so
14 they can talk out to the lifeboat areas and internally if they had
15 to let people know if there's any emergency or anything like that?
16 Do you know if that's a requirement?

17 A. I don't believe so. I've never dealt with class on that item
18 and I've dealt with class a lot, so no.

19 Q. Did you ever review any of the lashing gear inventories?

20 A. No.

21 Q. And my last question is, was the master -- would the master
22 and the chief engineer give direct reports to you?

23 A. Oh, yeah, a voice report at the end of the month from the
24 chief and that was it.

25 Q. Okay. So you didn't oversee them to make sure that they were

1 doing their jobs or anything like that?

2 A. Well, I would talk with them every week, so I would know
3 what's going on that way. And the chief engineer would have a
4 monthly report and also they turn over notes to the next oncoming
5 chief, so I could review that and see what's going on.

6 Q. So would you say that you had oversight over the masters and
7 the chief engineers?

8 A. Yes.

9 MR. KUCHARSKI: Thank you, Mr. Neeson and Captain. No
10 further questions.

11 BY CAPT NEUBAUER:

12 Q. Mr. Neeson, did you take over any port engineer duties for
13 *El Yunque*, after the loss of the *El Faro*?

14 A. Yes, I did.

15 Q. Are you familiar with some issues that were found on the
16 *El Yunque* during the document compliance audit and specifically
17 with regards to the Hold 3 exhaust trunks?

18 A. Yes, I'm familiar with that.

19 Q. Is it accurate to say that the Coast Guard broke off from the
20 audit and directed that the one exhaust trunk for Hold 3 be
21 examined?

22 A. I believe so, yes.

23 Q. Are you aware of any discussions between the Coast Guard and
24 TOTE about checking the rest of the exhaust trunks after that was
25 found?

1 A. Yes.

2 Q. Do you know if TOTE opened up all the exhaust trunks to that
3 examination?

4 A. We opened up -- I'm not sure if we opened every one of them,
5 but we opened up a considerable amount of them, yes.

6 Q. What kind of inspection was done?

7 A. They crawled inside with a chip and hammer to determine the
8 strength of the metal and we had to clean up the floors from the
9 rest planks so they could examine the flooring of the exhaust
10 trunks. A general condition review.

11 Q. In your opinion, what was the general condition?

12 A. Pretty bad, pretty rusty.

13 Q. And what was the plan to address those conditions?

14 A. The plan would be to repair them before they could get a ship
15 ticket and be cleared for class again. So we had to change out
16 the seal, replace all the seals that were questionable, that
17 didn't gauge correctly or the baffling was thinned out, we had to
18 replace areas. It was marked off with paint on what was required
19 and we had a list made up of seals that needed to be replaced.

20 Q. If the conditions were bad in your assessment, why were not
21 -- why weren't all of the holds checked? I'm sorry, let me
22 clarify. Why weren't all of the exhaust trunks checked?

23 A. It was assumed by the inspector that it would be more of the
24 same. The general inspection would just show more of the same
25 condition, basic condition. So I think they went only just to

1 very forward trunks.

2 Q. Was ABS involved in that inspection or survey?

3 A. Well, the big survey was done by the Coast Guard.

4 Q. Let me just clarify. I mean, after this was found while the
5 *El Yunque* was in Jacksonville, there were -- in Exhaust Trunk 3,
6 the Coast Guard determined that there was wastage in that trunk.
7 Are you familiar with that?

8 A. Yes.

9 Q. Was the expanded exam to get the trunks done before the
10 vessel departed for Tacoma?

11 A. No. I think we did the port side, but as far as the forward
12 ones, no.

13 Q. Did you know if ABS checked any of the trunks?

14 A. ABS checked the after trunks and the next segment up, I
15 believe. But we didn't check them all, no.

16 Q. Are you certain that ABS checked -- would it be three sets of
17 trunks, that one?

18 A. I don't recall exactly, no.

19 CAPT NEUBAUER: At this time I'd like to go to the parties of
20 interest for follow-up questions. TOTE?

21 BY MR. REID:

22 Q. Mr. Neeson, did you go inside to inspect the ventilation
23 trunks or did you just look in?

24 A. Most of them I went inside and looked at them.

25 Q. If you would, Mr. Neeson, would you pull up the exhibit that

1 Mr. Kucharski was referring to, with the critical equipment? I'm
2 trying to find the number here.

3 CAPT NEUBAUER: Mr. Yemma, do you have that exhibit number?

4 CDR DENNING: I believe it was Exhibit 344.

5 BY MR. REID:

6 Q. Can you read what it says at the top of that page, all of the
7 first pages? Does it say components alphabetically?

8 A. Yes.

9 Q. And how many pages is that document?

10 A. It says 55.

11 Q. And is it fair to say that that 55-page document with the
12 list of equipment in there has various types of equipment, some
13 critical and some non-critical, and some for perhaps health and
14 welfare of the crew?

15 A. I would say that's a fair assessment.

16 MR. REID: Thank you.

17 CAPT NEUBAUER: Mrs. Davidson?

18 BY MR. BENNETT:

19 Q. Mr. Neeson, you're a licensed mariner, correct, or were?

20 A. That's correct.

21 Q. You sailed as chief engineer?

22 A. Yes.

23 Q. How many years did you go to sea?

24 A. Twenty-eight years.

25 Q. Did you ever sail through heavy weather?

1 A. Plenty of times.

2 Q. Tropical storm weather?

3 A. Yes.

4 Q. Hurricane weather?

5 A. Yes.

6 Q. Exhibit 52, I think, was your evaluation of Captain Davidson
7 in October of 2014 and at that point in time you rated him Number
8 5, which was exceptional, correct? For the 10 items of the 12
9 that you evaluated, correct?

10 A. Yes.

11 Q. And in that form there's a section for comments, correct?

12 A. Yes, sir.

13 Q. And nowhere in there do you say that he wasn't walking the
14 decks, correct?

15 A. That is correct.

16 Q. And of all the items that people told you about Captain
17 Davidson, good and bad, the only item that you passed on to
18 Mr. Fisker-Anderson, which got caught up in an email, is one
19 sentence that says he doesn't walk the decks, correct?

20 A. I don't know if I sent that email or he sent that email.

21 Q. And what you were conveying to him was not that he did not
22 walk the decks, but that he did not walk the decks as much as
23 other captains, correct?

24 A. I believe so.

25 Q. And that may have been his mastering style and the fact that

1 he trusted his chief mate, who now is the captain on the LNG
2 ships, Captain Thompson, correct?

3 A. It could be, yes.

4 Q. And it is the chief mate's duty to secure the decks, correct?

5 A. Yes.

6 Q. Did you ever talk to a bosun by the name of Walker?

7 A. Yes.

8 Q. He had mentioned or testified under oath here that he often
9 saw Captain Davidson very early in the morning walking the decks
10 at that time. Do you recall that testimony?

11 A. I wasn't there for that, but I've heard of that one, yes.

12 Q. I want to now go to the VDR. I think it's page 127, where
13 there was some questioning of you about communicating, Captain
14 Davidson communicating back to the office about taking Old Bahama
15 Channel and the focus was whether he needed the authority. I want
16 to shift the focus a little bit. Captain Davidson, on
17 September 30th, is talking about a course that he's going to take
18 on the northbound trip, correct?

19 A. Yes.

20 Q. So he was already evaluating the weather 3 or 4 days out, to
21 make sure that he had a safe voyage back home to Jacksonville,
22 isn't that correct?

23 A. That's correct.

24 Q. And that goes with his personality about being on top of the
25 weather, caring for the safety of his crew, that he was thinking 2

1 or 3 days out, the forecast for the storms, that she would blow up
2 into a hurricane on the 3rd, 4th, or 5th, not on the 1st, correct?

3 A. That's correct.

4 MR. BENNETT: Thank you, sir. No further questions.

5 CAPT NEUBAUER: ABS?

6 MR. WHITE: No questions. Thank you, sir.

7 CAPT NEUBAUER: Commander Denning?

8 BY CDR DENNING:

9 Q. Mr. Neeson, I just have one follow-up question. Was there a
10 specific maintenance and repair budget for the *El Faro* prior to
11 the loss?

12 A. No.

13 Q. So how were decisions made on schedules for repairs and what
14 had to be repaired or maintained now versus what could be delayed?

15 A. We didn't delay any repairs unless it was like a shipyard
16 item that would be done in the shipyard, a major item. But normal
17 day-to-day operational repairs were done as needed, right away.

18 Q. As a company, you know, that does maintain a profit, there
19 was no legend set for maintenance?

20 A. My superior, Phil Morrell, is the supervisor of larger budget
21 items. I was in charge of the smaller budget items. So big
22 ticket items would be approved from up above, but I never had
23 anything denied.

24 CDR DENNING: Thank you, sir.

25 CAPT NEUBAUER: Mr. Fawcett?

1 BY MR. FAWCETT:

2 Q. Sir, just a clarification about blowing tubes. You said they
3 would slow the ship down. By that, did you infer that the
4 engineers would slow the vessel down to complete the operation?

5 A. Yes, they would use the throttle to slow it down. Yes.

6 Q. We haven't introduced it as evidence, but during the course
7 of the investigation there was a bridge walk-about movie. I
8 believe the movie was filmed in Baltimore in -- that movie shows a
9 TV monitor on the bridge, near the GMDSS station and it shows Hold
10 Number 3. Are you aware that at one time that the *El Faro* had
11 television cameras in the holds?

12 A. Not to my knowledge, no.

13 Q. If they had had television cameras, could they have observed
14 what went on in the moments leading up to the accident, with
15 regard to the scuttle and the cars moving around and other
16 possible shifting cargo?

17 A. That's a possibility, yes.

18 Q. We talked about the bilge floats and how they lift to
19 energize the alarm. Could shifting cargo, dunnage, straps,
20 chains, interfere with the ability for the ball to lift and sound
21 the alarm in Hold 3?

22 A. It's possible, yes.

23 Q. You had sent an email to Life Rafts U.S. We had asked in
24 earlier testimony, on the morning of September 29th, the chief
25 mate sent a request ashore to you and in that request he basically

1 said, to the best of his knowledge, they hadn't received a
2 hydrostatic release. You sent an email on the afternoon of the
3 29th to Life Rafts U.S. Do you know whatever happened? Was it
4 just a clerical error on the chief's part or did, in fact, the
5 hydrostatic release not get to the ship?

6 A. As I remember, it was not delivered at that time.

7 Q. So you work around the terminal?

8 A. Yes, at Blount Island.

9 Q. So in July there was an incident at the gate where a crewman
10 allegedly was intoxicated. Chief Mate Thompson was sent ashore to
11 deal with it. Do you know what happened? Are you aware of the
12 circumstances of that event?

13 A. No, I'm not.

14 Q. If that person had violated the zero tolerance policy for
15 alcohol, would you have been expected to counsel or give feedback
16 to people on board the ship, related to that?

17 MR. BENNETT: Captain, just one comment. I think the
18 testimony is that when Chief Mate Thompson went out, no one was
19 there. So while it was an allegation, you keep using the term the
20 person, but no one was there. This may not even have been an
21 event. We don't know about this. It's an allegation and it's not
22 supported. I just want that for the record.

23 CAPT NEUBAUER: I agree, that's an accurate assessment of the
24 testimony.

25 MR. REID: And I would also object to any insinuation that

1 there was an alcohol incident. There was an investigation of a
2 potential alcohol incident, as far as I know.

3 CAPT NEUBAUER: I agree with that.

4 MR. FAWCETT: Thank you very much. I apologize for the
5 question. I appreciate it, sir.

6 BY CAPT NEUBAUER:

7 Q. Mr. Neeson, I have one follow-up question. Based on your
8 understanding of where the bilge floats were in the holds, can you
9 provide an estimate of how many gallons of water it would take to
10 activate the bilge alarm at an even keel?

11 A. By the size of the rose box, I would say 50 gallons
12 approximately.

13 CAPT NEUBAUER: Thank you. At this time, are there any
14 follow-up questions for Mr. Neeson?

15 MR. REID: Sir, would it be okay to take a 5-minute break?

16 CAPT NEUBAUER: Certainly. The hearing will recess and
17 reconvene at 3:20.

18 (Off the record at 3:13 p.m.)

19 (On the record at 3:22 p.m.)

20 CAPT NEUBAUER: The hearing is now back in session.

21 We're now going to the parties of interest. TOTE, do you
22 have any questions?

23 MR. REID: Just a couple, sir.

24 BY MR. REID:

25 Q. So first, Mr. Neeson, you were asked about any procedures

1 that the company has with regard to soot blowing, and on the
2 break, I showed you Section 6.13 of the safety management system,
3 which is Exhibit 198. Does that refresh your recollection of
4 whether there's any company policy on soot blowing?

5 A. Yes.

6 Q. Okay. And those policies basically lay out general
7 guidelines, but the chief engineer was to determine when a soot-
8 blowing operation takes place, isn't that correct?

9 A. Yes, that's correct.

10 Q. On the break, I also -- you were also asked about any
11 procedures that are in place, emergency procedures, regarding a
12 loss of lube oil pressure. And as an initial matter, would you
13 expect that the engineers that are on watch on the *El Faro*,
14 responding to the loss of lube oil would be essentially second
15 nature?

16 A. Yes.

17 Q. And so on the break, I also showed you Exhibit 375, which is
18 the troubleshooting analysis guide in the main gear manual. Do
19 you recall seeing that?

20 A. Yes, I did.

21 Q. And in there, there is a procedure for diagnosing loss of
22 lube oil and how to respond, is that not right?

23 A. That's correct.

24 Q. You were also asked about how much water might be expected to
25 be in the rose box or in the cargo hold before the bilge alarm

1 would go off. Do you remember that?

2 A. Yes.

3 Q. And so there were amounts used, 50 gallons or 1,000 gallons.

4 Let me add an additional fact. If the vessel were heeled over,
5 let's say, 7 degrees and then water started entering the scuttle,
6 would there be a delay or would there be an accumulation of water
7 before the bilge alarm would go off?

8 A. Yes, you would get quite a bit of water leaning up against
9 the skin of the ship before it gets to the rose box.

10 Q. And that's because the rose box is inboard at the skin of the
11 ship by some amount, of 10 feet or so?

12 A. Yes, it's 8 or 10 feet inboard. Yes.

13 MR. REID: Thank you, sir.

14 CAPT NEUBAUER: Mrs. Davidson, any final questions?

15 MR. BENNETT: No, sir.

16 CAPT NEUBAUER: ABS?

17 MR. WHITE: No, sir.

18 CAPT NEUBAUER: Mr. Neeson, you are now released as a witness
19 at this Marine Board investigation. Thank you for your testimony
20 over two sessions, and your cooperation. If I were to determine
21 that this Board needs additional information of you, I will
22 contact you through your counsel. If you have any questions about
23 this investigation, you may contact the Marine Board reporter,
24 Lieutenant Commander Damien Yemma.

25 At this time, do any of the PIIs have any issues with the

1 testimony we just received?

2 MR. REID: Sir, I have one other follow-up question.

3 CAPT NEUBAUER: Yes, sir.

4 BY MR. REID:

5 Q. Mr. Neeson, you were asked about the vents and closing them
6 for heavy weather. Are you aware that there is a regulation that
7 requires the ventilation to be open and functioning while there's
8 cargo -- while there's cars in the hold?

9 A. It was pointed out to me that yes, while there's vehicles
10 down below, the ventilation should be on. Yes.

11 MR. REID: Thank you. No other issues with the witness'
12 testimony.

13 CAPT NEUBAUER: Mrs. Davidson?

14 MR. BENNETT: No issues.

15 CAPT NEUBAUER: ABS?

16 MR. WHITE: No issues.

17 CAPT NEUBAUER: Okay. Mr. Neeson, you are now released.

18 (Witness excused.)

19 CAPT NEUBAUER: The hearing will recess and reconvene at
20 3:35.

21 (Off the record at 3:25 p.m.)

22 (On the record at 3:37 p.m.)

23 CAPT NEUBAUER: The hearing is now back in session.

24 At this time we'll hear testimony from Captain John Lawrence,
25 TOTE Services Manager of Safety and Operations.

1 LCDR YEMMA: Please raise your right hand, sir.

2 (Whereupon,

3 CAPT JOHN LAWRENCE

4 was called as a witness, and having been previously duly sworn,
5 testified as follows:)

6 LCDR YEMMA: Please be seated, sir. Thank you. And
7 Mr. Lawrence, we also got your background during your prior
8 testimony, but are you still the manager of safety and operations
9 at TOTE Services?

10 THE WITNESS: No, my title now is director of fleet safety.

11 LCDR YEMMA: Thank you, sir. Commander Denning will start
12 your questioning.

13 BY CDR DENNING:

14 Q. Good afternoon, Captain Lawrence.

15 A. Good afternoon.

16 Q. During your testimony before this Board during our first MBI
17 session on February 20th, 2016, NTSB had not yet recovered the
18 voice data recorder at that time. You spoke to us about your
19 conversation with Captain Davidson just after 0700 on the day the
20 *El Faro* was lost, and to do that, you used your notes on that
21 conversation, which we have as Exhibit 32, to tell us what you
22 could recall from that conversation. Since that time, the voice
23 data recorder has been recovered and a transcript has been
24 created. Since your last testimony, have you had an opportunity
25 to review that transcript?

1 A. Yes, I have.

2 Q. Did you review the transcript in its entirety?

3 A. Yes.

4 Q. Now that you've listened to the VDR transcript or listened to
5 the VDR and created a transcript, we have a much more thorough
6 understanding of that conversation but still, we only hear Captain
7 Davidson's side of that conversation and not your side. What I'm
8 going to do is go line by line on that transcript and ask you to
9 try to fill in the gaps to the best of your recollection, which
10 helps us build a context for some of Captain Davidson's answers.
11 Before we do that, is there anything that you want to clarify from
12 your previous testimony?

13 A. No, but we received -- it may have been helpful for me to
14 have my previous transcript or notes that I had, but I'll try to
15 go from memory.

16 CAPT NEUBAUER: You know, it would not be difficult to print
17 out those notes at this time. Lieutenant Commander Yemma, can
18 you --

19 LCDR YEMMA: It's Exhibit 32. It should be in one of the
20 binders there.

21 BY CDR DENNING:

22 Q. So that will be available for you, sir, in the binder, and
23 then Lieutenant Commander Yemma will show the VDR transcript on
24 your screen so you can cross-reference as you need to.

25 A. Okay.

1 Q. So Lieutenant Commander Yemma, at this time, is pulling up
2 Exhibit 266, which is the VDR audio transcript. We're going to
3 begin on page 470 of the VDR transcript, which is page 471 of the
4 PDF document. Let me know when you see that on your screen, sir.

5 A. I see that.

6 Q. So at the top of page 471 -- when I reference the exhibit,
7 I'm going to speak in terms of the page number on the audio
8 transcript itself, which is one page off from the PDF. So for
9 everyone's reference, page 470 of the actual transcript is where
10 we're going to start. At the very top of that page, 06:59 and 43
11 seconds, there's a call from Captain Davidson directly to you,
12 Captain Lawrence. That's the one where he left a voicemail. A
13 lot of that is unintelligible on the particular VDR audio
14 transcript. We had that recording from you previously, so we
15 won't go through that.

16 The next call is at 0700 and that's Captain Davidson's call
17 to the emergency response team phone number, asking to be
18 connected to a QI. Again, I won't read through that, but we have
19 several of those recordings and we can fill in the gaps on that
20 conversation, so we won't do so now. It appears that Captain
21 Davidson was placed on hold from 07:01:52 until 07:02:27,
22 approximately 30 seconds. It continues on page 471. And on
23 through page 472, he appears to be placed on hold again for
24 approximately one minute, from 07:04 and 5 seconds to 07:05 and 12
25 seconds. This is just helping to build some of the context here.

1 On page 473, the call center recording picks up again at
2 07:05:12. It's identified as captain on the UHF, but that was
3 picked up in the call center recording that we played during
4 previous testimony where he says "and uh mate -- what else do you
5 see down there? what else do you see?" So that was picked up on
6 both the VDR audio transcript and the call center recording.

7 Then Captain Davidson is placed on hold again from 07:05 and
8 30 seconds until 07:05 and 50 seconds, for approximately 20 more
9 seconds. And then one more time, for a four-time total, Captain
10 Davidson is placed on hold from 07:06 and 25 seconds until 50
11 seconds. After those four times on hold with the call center, he
12 is connected to you, sir.

13 And now we're on towards the bottom of page 474. So at
14 07:06:56, Captain Davidson begins the conversation with you,
15 Captain Lawrence. "hello this is Captain Davidson master. whom
16 am I speaking with?" Can you help fill in the gaps there, how you
17 identified yourself at the beginning of that conversation?

18 A. To my best recollection, I would've answered him that this is
19 Captain Lawrence. I'm returning your call, Captain.

20 Q. Captain Davidson says "sir. a" -- you know, you see the
21 first two letters there, an s-c. And then it appears you may have
22 spoken in between 07:07 and 12.9 seconds there and 07:07:15. It
23 appears that he began to speak and maybe you cut him off. Do you
24 recall what you said in there, sir?

25 A. Yes, that's what it looks like to me. It appears he's

1 started to say a scuttle, to start to tell me what the situation
2 was and I probably spoke over him to just give the normal
3 salutations, you know, hi, how's everything going there?

4 Q. Yes, sir. Was there a bit of a delay to the sat phone? Was
5 there any delay between you or was it pretty much instant?

6 A. It's pretty much instant, I guess.

7 Q. During Captain Davidson's paragraph there at 07:07:15, we
8 won't read the whole thing now, one of the things that he says in
9 there is "the engineers cannot get lube oil pressure on the plant
10 therefore we've got no main engine." That fact of lube oil
11 pressure was not mentioned in your notes, which again you have the
12 exhibit open in front of you, and you didn't reference that in
13 your prior testimony. Can you fill us in on anything that you've
14 learned? Any particular reason you didn't mention that in your
15 notes or your testimony?

16 A. I was taking my notes as quick as I could as the captain was
17 describing the situation and looking back, I'd say the "no main
18 engine" was the most -- the main issue that I saw there, other
19 than the other navigational issues, as far as the port list and
20 the level of the water. I don't recall him saying the lube oil.
21 We spoke about that after I hung up, when I just went into the
22 office. But at this point I didn't recall it.

23 Q. Thank you for that clarification. And then I want to point
24 out the fact that, at the end of that paragraph of Captain
25 Davidson speaking at 07:07 and 59 seconds, there's actually very

1 little gap at the time between the end of that paragraph and the
2 next time Captain Davidson speaks, which is on the next page. If
3 you're looking at the transcript, it appears there may be a gap
4 there. It's second mate conversations on the electric phone, I
5 believe they call it the house phone on board, where she's
6 speaking with the engine room.

7 For the sake of the space on the transcript, it makes it
8 appear that there's more of a gap than there actually is. But if
9 you note, Captain Davidson is speaking at 07:08 and 3 seconds. It
10 was a very, very short period of time from the last conversation.
11 And that's at the top of page 476. It's only a 3-second delay,
12 sir. Do you happen to recall if you said anything in between
13 that?

14 A. Not that I recall.

15 Q. Captain Davidson tells you their position at 07:08 and 3
16 seconds. Just after that, there's a little bit of a gap, about 5
17 seconds, and he begins his next phrase with "yup." It sounds as
18 though maybe you asked him a question or said something that he
19 answered "yup" to. Do you recall what you may have said in there,
20 sir?

21 A. I assume that's a question I may have asked, but I don't
22 recall exactly.

23 Q. You said you assume a type of question you might have
24 asked --

25 A. Well, just with his answer, "The crew is safe," I more than

1 likely asked him is everybody okay?

2 Q. Then he says, as you said, "The crew is safe. Right now
3 we're tryin' to save the ship (now). But uh all available hands."
4 Did you say something after that, in between his next statement
5 just a few seconds later?

6 A. Yeah, after that, I had asked -- I assume that's where I had
7 asked a question about where exactly are you, other than just the
8 latitude and longitude, in relationship to any land.

9 Q. To which he replied, at 07:08 and 36 seconds, "we are forty-
10 eight miles east of San Salvador." Then there's another 5-second
11 gap before Captain Davidson replies "we are taking every measure
12 to take the list off." Do you recall anything in that gap, sir?

13 A. Just going back before the answer to how far he was off San
14 Salvador, I did recall him asking what I assume now was the second
15 mate, you know, where exactly are we in relation to land. I could
16 overhear that conversation, which she did give him that position
17 of 48 miles east of San Salvador, just to fill in that part of the
18 gap.

19 Q. So Captain Davidson says "we are taking every measure to take
20 the list off. by that I mean pump out that pump out that hold the
21 best we can but we're not gaining any ground at this time." And
22 then there's about a 5-second gap. Can you tell us what you said
23 in there, sir?

24 A. Well, I did write my note here, pumping out hold, and then I
25 -- that's the point where I asked him, you know, how much of a

1 list do you think you have?

2 Q. So that's you asking him how much of a list he has?

3 A. That's correct.

4 Q. To which it appears he replies -- tell me if I say anything
5 that's not in accordance with your recollection, please. "right
6 now it's a little hard to tell." So that statement is in response
7 to you asking him what the list is? Is that what I understand?

8 A. That's correct.

9 Q. And he also says "because all the wind is on that side too so
10 we got a good wind heel goin'." Then there's a very short gap of
11 about a second and a half. Did you say anything in there, to the
12 best of your recollection?

13 A. I don't recollect exactly what I said then.

14 Q. Captain Davidson says "but it's not gettin' any better."
15 Again another short gap in between his statements. Do you recall
16 saying anything in there, sir?

17 A. I don't.

18 Q. Then he says "I'm gunna guess uh -- yeah um -- I'm -- I'm.
19 And then he says "go 'head sir." So he makes it sound as though
20 you're again interjecting. Do you recall what you interjected in
21 there, sir?

22 A. In between one of those next few gaps I asked him about the
23 weather and I'm not sure which section it was, either that section
24 or the next section. I know it was definitely after the next bit
25 section, but I may have even mentioned something earlier than the

1 first one.

2 Q. And Captain Davidson, at 07:09:23, mentions priorities. Did
3 you ask him about his priorities or is that something he's
4 offering to you unprompted?

5 A. Again, I didn't write that down, but I asked him, you know,
6 what do you plan on doing?

7 Q. In that next paragraph there at 07:09 and 23 seconds to 07:09
8 and approximately 40 seconds, Captain Davidson says three times
9 that they're going to stay with the ship. During your earlier
10 testimony on February 20th, 2016, Mr. Fawcett asked you about your
11 analysis of that statement. For future reference, that's page 79
12 of that particular transcript. We don't need to go there now.
13 But you indicated, among other things, that you expected to talk
14 to Captain Davidson further. Again, we won't go into that in
15 detail on that discussion from your prior testimony, but I will
16 ask if after reading the VDR transcript, has that refreshed your
17 memory? Is there anything else you'd like to add on this topic at
18 this time?

19 A. Right to the end there? Are you talking about to the last
20 section there, when he's talking about the 10 to 12 feet, or are
21 you just talking about the comment about what is happening?

22 Q. No, I'm still at 07:09 and 23 seconds, specifically the three
23 statements from Captain Davidson where he say's we're going to
24 stay with the ship. We asked you at length during the first MBI
25 testimony what you thought he meant, what you thought he meant by

1 that, because that's perhaps a statement indicating that they
2 considered abandoning ship at that time, and you responded. We
3 talked about it at great length during your first testimony.
4 Again, I don't want to rehash that entire conversation, but have
5 you given more thought to what Captain Davidson may have meant by
6 that statement?

7 A. We'll have to read, obviously, the transcript and seeing what
8 was actually happening during this conversation with me.
9 Obviously, it was a lot more serious than first came across to me.
10 As I stated in my earlier testimony, he was extremely calm and
11 professional, along with the second mate, the way that she gave
12 him the position. So at this point here I had no idea of the
13 seriousness of the issue that was at hand. So looking at this
14 now, obviously, there's more going on, but it really didn't strike
15 me as -- when he said nobody's -- we're not planning on leaving
16 the ship or we're staying with the ship, it didn't really strike
17 me as anything that urgent at that time.

18 Q. At the end of the paragraph he says "now as," as though he's
19 getting ready to make another point, and then he says again "go
20 'head sir." So apparently you're speaking. Do you recall what
21 you said there? To which he responds "right. The uh -- state of
22 the weather." So did you, perhaps, ask him some type of state of
23 the weather or something else?

24 A. Yes. Let me go back to the previous paragraph. At that
25 point there where he's saying the weather is ferocious and that

1 they were -- everyone's staying with the ship, what I meant is
2 that, again, he was calm. The actual seriousness I was not aware
3 of at the time. But when he started using phrases like that, I
4 realized more things were going on than were coming across to me.
5 So that's when I felt that I just had to ask a few more questions
6 before I, you know, let him get back to doing what he's doing, get
7 off the phone and see if there are more urgent issues to deal
8 with --

9 Q. Yes, sir. So you said you asked a few more questions?

10 A. A few. Yes, I'm sorry. A few more questions where I wanted
11 to find out about the weather. I just said what is -- you know,
12 what is the state of the weather out there right now? And two
13 questions I know I asked, you know, what the sea is doing and he
14 basically came back with -- he was telling me that he had swells
15 from the northeast, about 10 to 12 feet, and high winds.

16 Q. So the entire approximately 9-second gap between 07:09 and 59
17 seconds and 07:10 and 8 seconds was you asking about the weather,
18 is that what I understand, sir?

19 A. That's correct.

20 Q. At 07:10 and 15 seconds, Captain Davidson says a "solid 10 to
21 12 feet" and then, parenthetically, the word "over," followed by
22 the word "spray." Here in the transcript he says "(over) spray,
23 with over being parenthetical.

24 Your notes say 10- to 12-foot swell. Now that you've read
25 the transcript, can you provide any clarity on what Captain

1 Davidson may have said? You know, the word "over" wasn't heard
2 clearly during the transcript process, and then the word "spray"
3 is obviously different than the word "swell." Can you offer any
4 clarity on what he may have said in there? We've also been able
5 to review the hindcast of the actual weather conditions they were
6 experiencing at the time, which is much higher seas than 10 to 12
7 feet. So if you can provide any clarity on that, it would be
8 helpful.

9 A. No. The way I understood when he mentioned it to me is I
10 wrote down 10 to 12, 10- to 12-foot swell, because I had asked him
11 about, you know, how's the seas out there? And I obviously didn't
12 write down the word "spray" because I must've heard it incorrectly
13 and not heard the word "spray."

14 Q. He ends that statement at 07:10 and 32 seconds, then we hear
15 the second mate say, at 09:58:08 -- oh, you seem to be asking --
16 oh, I'm sorry, he says "I'll give ya a barometric pressure." Was
17 that something you asked for or something Captain Davidson
18 volunteered?

19 A. That's something he volunteered.

20 Q. Then in the left-hand column you see him say "what's the
21 millibars?" Because that's in the left-hand column, it appears
22 that he's speaking to the second mate on the bridge. She responds
23 "958.8." He asks her to get the phone and you hear the sound of
24 the house phone ringing again. She replies yes. At this point
25 the captain's conversation with you shifts to the left-hand

1 column. Did you say anything in between before his comment at
2 07:10 and 42 seconds? It's not intelligible what he says in
3 response. There's an asterisk indicating an unintelligible word
4 and then the word "something" parenthetically, signifying a
5 questionable insertion. Do you recall either what you said or
6 what he said at that particular moment?

7 A. Not exactly, other than that's when I was asking him more of
8 the exact list, the type of list he did have, to make sure I had
9 that clear.

10 Q. And it's also unclear whether he's speaking to you on the
11 phone or if he's speaking to the second mate. So I thought maybe
12 if you had heard something, sir, it would've been helpful. There
13 is a bit of a gap between that statement and you hear the second
14 mate on the audio. We hear the second mate on the house phone.
15 Then the captain speaks again at 07:10 and 49 seconds, which is
16 about 5 seconds from his last comment. Do you recall if you said
17 anything in that gap, sir?

18 A. I don't recall.

19 Q. After the next pause from Captain Davidson, he says "betcha
20 it's all of fifteen -- fifteen degrees." Did you ask him
21 something in there about the angle of list, perhaps, here?

22 A. Well, that's where I said I think I asked him about the list
23 again and I just assumed he was looking at an inclinometer at the
24 time to see what the list was.

25 Q. His answer is I'll betcha it's all of fifteen degrees. If

1 he's looking at an inclinometer, can you offer any clarity on why
2 he might be unclear on how certain he was about the heel?

3 A. I can only assume that the vessel's motion and where he's
4 calling me from, he may be looking across to the front of the
5 bridge, because that's where the inclinometer was on that ship,
6 but I'm not certain.

7 Q. So again at 07:10 and 59 seconds to 07:11 and 3 seconds, he
8 says "10. 10 to 15 degrees but a lot of that's with wind heel."
9 Then there's a significant gap of about 7½ seconds before Captain
10 Davidson answers I can't determine that at this time. What did
11 you ask him in there, sir?

12 A. If I can step back to the 10 to 15 degrees, he was -- he
13 wanted to make it clear to me that he thought that the heel was
14 probably due to the wind at that point there. As far as the next
15 statement, I apparently asked him -- actually, I remember asking
16 him about pumping out the hold. I said do you think -- are you
17 actually pumping out the holds at this point?

18 Q. At the end of his statement at 07:11 and 10 seconds, he says
19 I can't determine that. So again, you believe that's in response
20 to your question on whether the pumping of the hold was effective,
21 is that what you're getting at?

22 A. That's what I intended with my question.

23 Q. At the end of this line it says "'cause" and then the word
24 "three" parenthetically and then an asterisk indicating that he
25 said something that was unintelligible. Do you recall what he may

1 have said at that particular moment?

2 A. I don't recall.

3 Q. And there's another gap of approximately 9 seconds before he
4 replies "that is correct." Can you fill in that pause for us,
5 sir, what you may have said in that 9-second time frame?

6 A. I don't recall.

7 Q. Captain Davidson continues: "that is correct. the engine
8 room has informed me that they are pumping that hold. there's a
9 significant amount of water in there." Then there's about a 15-
10 second pause from Captain Davidson, to which he replied "that's
11 correct." Can you fill us in on what you said or asked him there,
12 sir?

13 A. Again, I don't recall the exact question, but I think we were
14 discussing pumping out the hold again, just to see if he felt that
15 they're going to be able to do that.

16 Q. So his answer, "that's correct," you believe that's in
17 response to your question of whether they thought they would be
18 successful pumping out the hold?

19 A. Yes. Well, basically, the question paraphrased, it was
20 probably that I had asked him is he pumping out the hold and does
21 he think that they will be able to pump out the hold, and is it
22 being pumped out right now, if I remember correctly.

23 Q. Then there's an 11-and-a-half-second pause between Captain
24 Davidson saying -- oh, I'm sorry, a 15-second pause -- "that's
25 correct." An 11-and-a-half-second pause where he again says "yup

1 what -- what -- I wanted to do I wanna push that button." Can you
2 fill in either of those gaps, sir?

3 A. I can't recall what we were discussing for those few seconds.

4 Q. So he then tells you he's going to push the SSAS button. I
5 want to send some alarms on our GMDSS console. And then he makes
6 the statement "I wanna wake everybody up." Can you clarify for
7 us, sir, based on the context of your conversation, what he may
8 have meant by that, whether he was talking about shore side, was
9 he talking about waking up individuals at TOTE, the emergency
10 response team, perhaps the Coast Guard? Any insight on what
11 Captain Davidson may have meant by the statement "I wanna wake
12 everybody up"?

13 A. At the time, that's when I really realized the seriousness of
14 something was going on, obviously a lot more than I had assumed at
15 the time, based on his calmness and the conversation. And when he
16 said those words to me, that he wanted to push the buttons and he
17 wants to wake everybody up, that's when I realized that it's time
18 for me to let him do what he needs to do on board and I'll do what
19 I need to do and that's what basically I said to him at that point
20 there. And when he said "I wanna wake everybody up," I'm assuming
21 he's talking shoreside people, not specifically TOTE but everybody
22 who the buttons and alarms that go in to or meaning the Coast
23 Guard and TOTE.

24 Q. But you do not believe he means personnel on board the
25 vessel; is that correct?

1 A. I didn't take it that way at the time.

2 Q. Thank you, sir. Then there's a 4-second pause from Captain
3 Davidson, to which he then states okay. I just wanted to give you
4 that courtesy. Did you say anything in that 4-second time frame,
5 sir?

6 A. I don't recall what I said there.

7 Q. So then Captain Davidson says I wanted to give you that
8 courtesy. He used the word "courtesy," which we've also heard in
9 the context of altering course, earlier in the transcript. The
10 words "professional courtesy" are used many times in the
11 transcript. We've asked other witnesses about this. I believe we
12 may have asked you personally about this in the first hearing.
13 Can you offer any context? Is professional courtesy a common word
14 spoken within the TOTE organization?

15 A. Not specifically that I can recall. I think that was just
16 Captain Davidson's way he spoke at the time there. He was very
17 formal. As you can see, during the conversation, he'd call me
18 sir, you know. And also on this point, this is a point here where
19 I told him that, you know, you've got to do your things, Captain,
20 and I'll go do my things and I'll notify the Coast Guard for you,
21 and that's where he came back and said yeah, thank you, sir. And
22 again, that was the end of the conversation.

23 Q. So to the best of your recollection, has anyone ever told
24 Captain Davidson to provide TOTE with courtesy before making key
25 decisions?

1 A. After reading the transcript and as I said before, seeing the
2 seriousness of the situation that he was in at this time, I'd have
3 to say I was actually surprised that he gave me that courtesy.
4 With the things he had going on, I think he obviously just wanted
5 to make sure that anyone who received the alarms, at least I had
6 some basic information of what was needed at this time. And yeah,
7 that's it for right now.

8 Q. So he closes that phrase with the words "we're in survival
9 mode now." Again, at this point you indicated that you started to
10 understand the seriousness of the situation. What did you think
11 he meant when he said the words "we're in survival mode now"?

12 A. I really didn't take it to mean that their lives were in
13 danger at the time. I felt that he meant more that the ship
14 itself, seeing it was disabled at the time, that they just wanted
15 to get things right. And as I testified before, I really felt
16 that I'd be speaking to him again after we had this initial
17 conversation.

18 Q. And if you could fill us in, sir, on the very end of the
19 conversation, what you said after those words "we're in survival
20 mode now." He had told you they were going to stay with the ship,
21 we're in survival mode, we're going to push all the buttons, the
22 distress alarms. Your understanding of the severity of this
23 situation now. What did you say as you closed the conversation
24 with Captain Davidson just before he says, on the top of the next
25 page, "yup, thank you sir," and the conversation ends?

1 A. That's the previous statement I made before. That's actually
2 where you'd insert my final words to him as yeah, Captain, good
3 luck. You do what you have to do. You do your thing, I think was
4 the word that I used. I'm trying to recollect. And I said I'll
5 do my thing and I'll notify the Coast Guard for you, and that was
6 the end of the conversation.

7 CDR DENNING: Thank you, sir. It's helpful hearing the other
8 side of the conversation from the individual that last spoke with
9 Captain Davidson at that time. At this time I think I will pause
10 and I think Captain Neubauer may have follow-up questions and I'll
11 ask if anyone else has any follow-up questions on this particular
12 issue.

13 BY CAPT NEUBAUER:

14 Q. Captain Lawrence, I just want to know if you can really
15 recollect the quality of the connection that you had with Captain
16 Davidson. I'm specifically interested to know if there was a lot
17 of background noise and was it difficult for you to hear him
18 clearly?

19 A. It was very clear. I heard no background noise at all.

20 Q. I have a question on one of the statements made by Captain
21 Davidson and this is back at 07:08:44. It's on page 476 of the
22 transcript where he says -- Captain Davidson says "we are taking
23 every measure to take the list off. by that I mean pump out that
24 pump out that hold the best we can but we are not gaining ground
25 at this time." Do you remember if that statement -- does that

1 kind of refresh your memory after seeing this transcript?

2 A. No, I didn't recall him saying we're not gaining any ground
3 at this time. Again, it didn't really stick with me, because of
4 my later question to him, saying -- indicating that I felt that
5 they were pumping out the hold there. Again, at this point here,
6 he didn't come across as indicating the seriousness of the amount
7 of water that they were talking about down there. It was just
8 that they have significant list of water and that they were
9 pumping it. And once again I felt that once they got the list out
10 of the ship, they'd get the engines going and I'd be talking to
11 him in a little while and look at possibly any other concerns that
12 they had at that time.

13 Q. Is it possible that you could've been partially distracted
14 trying to take notes and listen at the same time?

15 A. I don't think so.

16 CAPT NEUBAUER: At this time I'd like to -- I'm sorry,
17 Mr. Fawcett has a follow-up question.

18 BY MR. FAWCETT:

19 Q. You mentioned, regarding the engineers, that on the
20 transcript there's a report that the engineers have lost lube oil
21 and they can't get it going, and you had said that you didn't
22 write that down but you spoke of it at the office. Can you
23 clarify that for me?

24 A. Yes. First of all, this is such a short period, really, and
25 I'm trying to write down notes for all the pertinent facts as I

1 can, to make sure I get it straight there. It takes me a little
2 while to write. And the lube oil, I don't recollect hearing that,
3 but if I did hear that, it didn't stick with me as important as a
4 major -- the bigger point is that he had no main engines. So
5 obviously, I thought that that was possibly due to the lube oil.
6 Once I went to the -- I reported this back to the office, about
7 the situation of the vessel.

8 I had later, during our incidence ramp up, remember talking
9 to one of our engineers at the time and I couldn't remember --
10 this was actually after we had already ramped up. Later on in the
11 day I remember speaking to somebody about possibly lube oil
12 pressure, the loss of lube oil pressure with a list could lead to
13 loss of suction and loss of the engines. I couldn't remember for
14 a long time exactly who I had spoken to. I had assumed it may
15 have been the director of ship management or my boss, Lee
16 Peterson.

17 I know now that it was actually -- after looking at our vice
18 president, Mitch Walker's testimony with the NTSB, he had had
19 actually written down what I had said to him and I hadn't seen
20 that until actually just recently, that he wrote, in parentheses,
21 lube oil, lube oil pressure due to loss of main engines. So
22 that's probably where I first heard it, it was from him and being
23 an engineer, he may have told me that this is what he assumed that
24 could possibly be a problem for loss of main engines.

25 Q. In thinking about the conversation with Captain Davidson, at

1 some later time do you recall telling someone that Captain
2 Davidson did, in fact, convey the issue about lube oil in the
3 conversation that he had you?

4 A. I don't recall mentioning that to anybody.

5 Q. What I was saying was, do you recall having a conversation at
6 a later time? Whether you told anybody or not, do you recall at
7 some other point that he told you lube oil could be the cause of
8 the loss of the engine?

9 A. No, I don't recall that I had ever remembered him saying that
10 to me. I said I assumed that it was based on the discussion I had
11 later on with some of our personnel in the office.

12 Q. So at 07:09 in the conversation with Captain Davidson, he
13 says "no one's panicking um everybody's been made aware." Later
14 on in the transcript, on page 496 of Exhibit 266, at 07:27 --

15 MR. REID: Sir, could we get to the page first before you
16 start reading?

17 MR. FAWCETT: Sure.

18 MR. REID: Thank you.

19 BY MR. FAWCETT:

20 Q. It just has a single line entry. It says that "[sound of
21 high frequency bell ringing, the general alarm]." From reading
22 the transcript, does it appear that at 07:27:16.2 the general
23 alarm was sounded?

24 A. It appears that way.

25 MR. FAWCETT: Thank you, sir.

1 CAPT NEUBAUER: Mr. Kucharski.

2 MR. KUCHARSKI: Thank you, Captain.

3 BY MR. KUCHARSKI:

4 Q. Good afternoon, Captain Lawrence.

5 A. Good afternoon.

6 Q. Just along the lines here, after you took the phone call, who
7 did you contact next?

8 A. After I took the phone call, I contacted the Coast Guard
9 next, the RCC in Norfolk. I'd have to look at the timeline, but I
10 think I contacted them right after I received the SSAS alert.

11 Q. Did you contact ABS, the rapid response damage assessment?

12 A. No, that was done later on in the morning.

13 MR. KUCHARSKI: Thank you. No further questions.

14 CAPT NEUBAUER: Captain Lawrence, at this time, Commander
15 Denning was going to continue on with the line, but would you like
16 to take a break or keep going?

17 THE WITNESS: Yeah, we can keep going.

18 CAPT NEUBAUER: Commander Denning.

19 BY CDR DENNING:

20 Q. Thank you, sir, for that clarification. We're going to
21 switch topics now and talk about the safety management system,
22 particularly internal audits. So we're going to go to Exhibit
23 311, which is the last internal audit, I believe, conducted by you
24 on March 3rd, 2015. So Lieutenant Commander Yemma is going to
25 bring up that exhibit for us. Exhibit 311, pages 5 to 6 appear to

1 be that final, most recent internal audit. On page 6 of that
2 document, is that your signature that appears there, sir?

3 A. Yes, sir.

4 Q. And the date next to that signature is June 4th, 2015. Is
5 that the date that you signed that document, sir?

6 A. That's correct.

7 Q. So that's approximately 3 months after the audit which took
8 place on March 3rd, 2015; is that correct?

9 A. That's correct.

10 Q. Is that a normal -- is that the normal span of time between
11 an audit conducted and the final report being generated?

12 A. I would not say that it's normal.

13 Q. So is it longer than normal?

14 A. In this case it was longer than normal. Based on the
15 information in the audit, we always sit down and go over the audit
16 findings, results, and observations. This is what I did in this
17 case and there was nothing substantial, there was no actual
18 findings in here. So they were fully aware of the audit as I went
19 through there and I spoke to everybody. So there was no urgency
20 in getting the written report done at that time and unfortunately,
21 it just took me a little longer than I had planned. It sat on my
22 desk for a little bit before I got it back to the ship. But I had
23 no question that they were all fully aware of the results of the
24 audit.

25 Q. So just to clarify, when you say sit down and discuss the

1 results of the audit, are you talking about on board the vessel or
2 back with TOTE management?

3 A. I'm talking on board the vessel, like a closing meeting.
4 After I complete the audit, I will sit down with whoever would be
5 available, the captain and any other of the senior officers, and I
6 would not only give them the results of the audit at that time,
7 but I would also give the results or any findings or observations
8 during the audit, to the people --

9 Q. Great. And then how are the official results, the official
10 paperwork, how is that communicated back to the vessel?

11 A. I send it to them in a PDF form attached to an email.

12 Q. Who was the master on board at the time of that audit?

13 A. Captain Axellson.

14 Q. During your previous testimony, Commander Odom asked you
15 about the general -- in general, about the process that you use
16 for selecting which elements of the plan of the safety management
17 system that you're going to audit. I'm going to ask you again
18 what your focus was, now that we have this particular document.
19 I'm going to ask you in more detail what your focus areas were for
20 this particular audit.

21 MR. REID: Can you scroll down, please?

22 (Pause.)

23 THE WITNESS: Scroll down some more, please.

24 BY CDR DENNING:

25 Q. And again, the nature of my question is your focal points.

1 We're going to step through the audit, piece by piece, but I'm
2 trying to get a sense for what you decided, prior to going on
3 board the vessel, what was going to be your focus areas.

4 A. My recollection, I mean, any audit, I would look at the
5 previous audits first to see if there was any key issues that I
6 should be looking at, anything in between that we've had a record
7 in the office, as far as any other incidents, issues, anything of
8 -- any focus that there should be when we go on board the vessel.
9 At this point here, this was the first time I had been on the
10 vessel since I had been with the company, because I just had been
11 with the company just a little over a year, at this point here.

12 So I was looking at the opportunities to introduce myself as
13 a designated person, to speak to the crew and see what their
14 knowledge was of the ISM system, to take a walk around the vessel
15 and just familiarize myself for the first time. Those, to me,
16 would be some of the key items and also to discuss some of our
17 safety management programs and again, to discuss the safety record
18 with that vessel and also -- we also did a security audit, I did a
19 security audit at the same time there.

20 So once again, I was seeing there was no outstanding findings
21 that I was looking at. I did basically just typical sample areas
22 that I thought were important at that time, for that vessel, and
23 to introduce myself to them.

24 Q. And your audit Item Number 2 indicates that you conducted a
25 walk-around tour and inspection of the vessel. How detailed was

1 that inspection?

2 A. I don't recall how detailed it was. I would've walked around
3 with the captain or the mate or in the engine room with the
4 engineer. I don't recall exactly, on that audit, what we did.

5 Q. How long did that inspection take?

6 A. The total audit is typically 5 to 6 hours on board. I don't
7 recall how long the walk-around was.

8 Q. Could you estimate for us?

9 A. I'd rather not estimate because I really don't recall. As
10 long as it would take to walk around the vessel and look at
11 specific items and look at the key points of a vessel I hadn't
12 been on before.

13 Q. Do you recall taking a good look at the scuttles during that
14 particular inspection?

15 A. I did not.

16 Q. Did you go through them at all or did you take other --

17 A. I don't recall.

18 Q. Do you recall if there was a mechanism to tie them open, if
19 the crew needed to do that?

20 A. I didn't see them, so I don't recall.

21 Q. Item Number 4 mentions the auditor's team, just that one
22 statement, and it says it should be noted that the auditor's team
23 is responsible for tracking most of the vessel's reports required
24 by the ISM system. What did you mean by the auditor's team in
25 that comment?

1 A. I meant my team shore side, myself and our SQE assistant. At
2 that point, an assistant SQE manager. And what it means is that
3 many times when you do an audit, you inspect and go through the
4 vessel's records, the training records, the paperwork. Typically,
5 especially if it's an external audit from ABS or even the Coast
6 Guard, they want the paperwork there. I hope that I can spend my
7 time in a better way on board because, like I said, my team is
8 responsible for tracking all of those records already.

9 So they're all sent into the office, all the quarterly
10 training reports and safety meetings. A lot of that -- most of
11 the paperwork is all forwarded in to me, at that time. So we had
12 already reviewed that, so that's part of my audit prep for going
13 on board that ship. So it extends not just for my time on the
14 vessel, but also looking at the required paperwork ashore, that we
15 receive from them, as well.

16 Q. That's the only place in this particular audit report that I
17 see the team mentioned. Were they on board with you at all during
18 this audit or were you alone?

19 A. I was alone.

20 Q. During that paperwork review that you just mentioned, are
21 STCW records included in that paperwork?

22 A. I don't recall. They don't necessarily -- no, they don't
23 send in their STCW papers. They're kept on board the vessel.

24 Q. Back to your audit report. Item 5 states that the last
25 internal audit was reviewed. That audit is also included in this

1 exhibit. Is that in reference to -- is that statement in
2 reference to the March 6th, 2014 audit that's earlier in this
3 exhibit?

4 A. That's correct.

5 Q. So I want to take a look at some of the corrective action
6 reports, nonconformities, and observations that are listed in
7 that, towards the end of that audit report, and ask how you
8 verified that each of these items had been addressed during your
9 audit. First, under corrective action requests and
10 nonconformities issued, it says EF-20.

11 A. Sir, can you scroll back? We're on the wrong page here.

12 Q. I'll give you a page number in just a moment. Page 3 of the
13 exhibit.

14 A. Yes, I see that.

15 Q. So there it says EF-020NDXC. Can you tell us what that
16 means, sir?

17 A. It's what my predecessor used as kind of a holding line, so
18 any corrective action in the future would be labeled -- the next
19 one would basically be 2-0, or 20. So that means the last
20 corrective action in the file for that vessel was 19.

21 Q. So does that mean that there were no nonconformities
22 identified during that previous audit?

23 A. That's correct.

24 Q. Under observations, it says a master's review needs to be
25 done before the ABS external audit. Did you verify that that

1 review was, in fact, completed?

2 A. I don't recall. I'd have to look at the ABS external audit.
3 As I said before, I looked at all the observations in this audit,
4 but I can't recall at this point exactly when they were cleared or
5 not cleared. I'll add one more thing to that. Typically, the way
6 I run my audits, if there's an observation that I saw that wasn't
7 cleared, that needed attention, then I would've addressed it at
8 this, at the audit that I did.

9 Q. The next observation, Number 2, relates to the semiannual OWS
10 audit, saying that they're due. The next one, Number 3, chief
11 engineer had not completed the insertion of all the changes at the
12 time of the audit. What changes is Mr. Rogers referring to there?

13 A. I'm just assuming that he was talking about the safety
14 management system changes, possibly pages sent to them that may
15 not have been included, that they just hadn't changed yet, changed
16 out yet.

17 Q. During your audit, did you then verify that they had been
18 made by that time?

19 A. Again, I do not recall, but I assume that I addressed -- I
20 looked at these observations prior to going onto the vessel.

21 Q. Number 4, under Mr. Rogers' audit on March 25th, 2014, it
22 says the vessel antenna diagram needs to be updated. Had it been
23 updated by the time you did your audit?

24 A. Once again, I can't recall at this point, but I'm sure I
25 looked at it.

1 Q. And the last two observations regarding container walkway
2 gradients and ORB-related information binder. Do you recall if
3 those had been corrected?

4 A. I don't recall.

5 Q. Back to your audit, sir. Item Number 6 mentions a meeting
6 with all available crew members in the crew mess. Who from the
7 crew was present for that meeting?

8 A. I don't recall.

9 Q. Can you give us an approximate number of crew members,
10 positions, anything you can recall from that meeting?

11 A. No, sir. Like I said, this is going back 2 years. It's a
12 typical type of meeting that I would call in all available crew
13 members and that's anybody who wasn't essential at the time for --
14 we usually do it during a coffee break, you know, for 15 minutes,
15 a half hour. But I don't recall.

16 Q. So during your audits, is it common for most of the crew to
17 attend that meeting? Is it a requirement of yours or is it,
18 again, just whoever can make it?

19 A. It's whoever's available at the time.

20 Q. What topics did you discuss at that meeting?

21 A. Basically, what I put down here. I said I go over a lot of
22 the typical questions that the crew should be familiar with as far
23 as our safety management system. I have a list of questions that
24 I bring and I update time to time, my own personal questions. And
25 like I said earlier, too, I take that time to discuss the

1 incidents the vessel's had and I take that time to talk about our
2 safety programs, which are our two most significant ones, the job
3 hazard analysis and near miss reporting, at the time. And again
4 telling them what the designated person is, what my function is,
5 how they can use that. And the company security officer, also.

6 I also go down to Number 7 on the list, a little bit lower.
7 We just had a terrible loss of the second assistant and I was
8 commending the crew members at the time there for giving the
9 gentleman CPR for, I think it was about 6 hours before they --
10 from the time they discovered him and talked to our medical
11 advisor service and the Coast Guard and brought the ship into --
12 it's in Florida, actually, to get EMTs there.

13 So again, I utilize that time the best I can to hit every
14 topic that's on the vessel. And again, I know I'm going here into
15 great detail by our safety management system and what they would
16 be expected to know if -- during their external audits when ABS
17 auditors come on board and whatever it is they have to be familiar
18 with. Basically, they're need-to-know issues I call them.

19 Q. So obviously, this meeting was not while underway, it was
20 dockside. Would you consider this meeting with the crew -- we
21 talk a lot about safety meetings during these hearings, primarily
22 underway. Would you consider this meeting with the crew, in a
23 sense, a safety meeting or is it something else?

24 A. This is something else.

25 Q. Have you ever been underway on *El Faro*?

1 A. No.

2 Q. Did you ever observe a fireboat drill, even if it was
3 dockside?

4 A. Not on the *El Faro*, no.

5 Q. You have on other vessels?

6 A. Yes.

7 Q. *El Yunque*?

8 A. I don't recall the *El Yunque*.

9 Q. Do you recall which vessels at all? Just curiosity.

10 A. The most recent one would be the vessel Patriot.

11 Q. So that could mean the crew -- if a crew member, officer or
12 unlicensed, were to identify a nonconformity themselves, they
13 observe something that they believe is a nonconformity, what are
14 they to do with that information?

15 A. They would bring it to the supervisor and eventually it would
16 -- they can bring it up at a safety meeting or they could
17 immediately bring it to the supervisor. Anybody can fill out a
18 nonconformance. We have a specific form for that. It would go to
19 the captain and he would send it in to the company.

20 Q. So that form has to go through the captain before it reaches
21 yourself, is that --

22 A. Yes, any -- all documentation would typically go through the
23 captain before it was sent ashore, unless it was a confidential
24 issue for the designated person. But as far as normal forms,
25 paperwork, reports like this would go -- you can go through the

1 captain.

2 Q. And as you met with the crew, did you stress to them the
3 importance of open communication regarding nonconformities?

4 A. I don't know if I specifically said the word nonconformities,
5 but I did explain to them the importance of reporting any safety
6 or environmental issues on board the vessel.

7 Q. Is it safe to say that was in general terms?

8 A. Yes, it would encompass everything.

9 Q. I meant in general terms as opposed to specifically
10 addressing how to file nonconformities in an efficient capacity.

11 A. I don't recall if I specifically told them the avenue to do
12 that with.

13 Q. On the VDR audio transcript, and we won't pull it up, but in
14 general, on pages 260 through 264 there's a conversation between
15 the third mate and the AB being on a watch with him, and one of
16 the things that they discussed is reluctance to bring up safety
17 issues at shipboard safety meetings. Have you read those
18 particular comments?

19 A. Yes.

20 Q. Why do you believe reluctance would occur?

21 A. It may just hopefully be just an individual, but I'd say it's
22 just a lack of a safety culture for that person to understand the
23 system and the benefits of it.

24 Q. So you say a lack of safety culture for one individual?

25 A. Well, I think that's all he's talking about, that one, isn't

1 it?

2 Q. During that conversation, it also sounds as though things
3 aren't being taken seriously when they are brought up at onboard
4 safety meetings. Yet, there doesn't seem to be any discussion, on
5 the bridge or otherwise, about contacting the designated person
6 ashore, yourself. That's your role as the DPA, to receive that
7 type of input, correct?

8 A. That's part of my role as DPA, but I was disappointed,
9 obviously, to read that somebody feels that they can't speak up at
10 a safety meeting. But to me, I've taken this kind of as a one-
11 off, hopefully, a one-off situation, because most of the people I
12 know on the vessels, that I speak to on the vessels, feel very
13 confident that they can bring up any issues at a safety meeting
14 and they'll be addressed either on board, hopefully on board,
15 before they even have to come to the company.

16 Q. Are you aware of any examples where an issue had been brought
17 up by a crew member at a safety meeting and word of that issue has
18 made it to your attention?

19 A. I'd have to look into our safety meeting records in the
20 company. I'm sure there's many of them that were brought up on
21 the ships. I can't name any specific one off the top of my head.
22 I'd have to go into our -- all the safety meeting minutes sent in
23 to the office and there's many cases there of things that were
24 brought up and rectified aboard the vessel.

25 Q. And have any crew members ever contacted you directly,

1 without going through either the captain or through a safety
2 meeting? Has anyone ever contacted you personally, whether on a
3 cell phone or on the ship's satellite phone, a direct contact from
4 a crew member directly to yourself?

5 A. Yes.

6 Q. Can you expand on that, what they discussed, if you're able?

7 A. I mean, in my role as the designated person, that's the
8 proper way to address any safety or environmental issues. They
9 can give me a call. My name and my telephone number, cell phone,
10 is posted all over the vessel. And I think I'm pretty confident
11 that everyone is aware of that. That's one of the key questions
12 that's asked in either the internal or external audits.

13 Typically, I do not receive many calls of that nature. Maybe
14 two to three a year, if that. And some of the calls I receive are
15 more HR issues, you know, or -- and I explain that to everybody on
16 board the vessels, too. And I explain in detail the role of a
17 designated person for only safety and environmental issues, but I
18 do tell them that my name and my telephone number is posted on a
19 vessel.

20 If they have other issues, maybe crewing issues, overtime
21 issues, any HR issues, that those are HR issues and crewing
22 issues, but they can call me and I'll steer them in the right
23 direction. And that's what I do. If I get a call like that, I'll
24 walk over to the head of HR and we'll discuss in detail and then I
25 tell the person somebody will get back to them.

1 Q. So you've received calls on HR issues. Have you received any
2 calls specific to safety issues?

3 A. Yes, I have.

4 Q. Would you please expand on the topic that was brought to your
5 attention?

6 A. I'd have to think a little bit more about that and the time.
7 I can't recall exactly. Probably some issues that initially may
8 not seem safety, they may seem more of an HR issue, I know that
9 the person will say that well, this is a safety issue because they
10 want somebody to address it and they know that I'll be able to
11 address it. As far as specific, I'd have to kind of look at a few
12 of my notes before I could speak to a specific case.

13 Q. I'll table that for the moment so that we can stay on this
14 particular audit. Mr. Fawcett will go into more detail with that
15 later on in your testimony, so I would ask that you keep that in
16 the back of your mind. You can refer to any notes that you need
17 to refer to, and Mr. Fawcett will cover that in more detail.

18 Back to the particular audit that you conducted. I also want
19 to point out, while we're talking about safety meetings, on page
20 318 of the VDR audio transcript, the second mate says to her AB --

21 MR. REID: Excuse me. Can we just wait until we get to the
22 page? Thank you.

23 BY CDR DENNING:

24 Q. So again, for everyone's awareness, we're going to page 318
25 of the audio transcript. Are you there, sir?

1 A. Yes.

2 Q. So on that page, the second mate says to her AB that people
3 don't take the whole "survival suit" safety meeting thing very
4 seriously. And she seems to imply that people say that their
5 survival suits fit without actually trying them on. Have you read
6 those comments, sir, and what was your -- what were your thoughts
7 about it?

8 A. Yes, I got it.

9 Q. And can you offer any thoughts that you have on that, on
10 those comments?

11 A. I think it's just the opinion that's given there. I don't
12 believe that that's necessarily the case in all situations but
13 again, I'm disappointed when I see that that's an opinion of
14 somebody.

15 Q. Are you aware of the processes and procedures on board *El*
16 *Faro* with regard to trying on survival suits, either during drills
17 or otherwise?

18 A. No.

19 Q. During that audit you issued four observations. We're going
20 to step through a few of those. Item Number 1 under observations
21 mentions the number of recent ops memos and other communications
22 from the office that weren't on board and it says the reason was
23 that the *El Faro* had a new email address and it was not updated in
24 the company's crew email database. What email address were they -
25 - are you referring to there?

1 A. The ship's email address.

2 Q. Do you recall what that -- what email address that is,
3 specifically? We have some for, you know, captain, chief
4 engineer. What do you mean by the ship's email address?

5 A. The one that typically would go to the captain, and they had
6 changed their email. I don't know if the ship -- but basically,
7 it was a new email address for the vessel and when I used that
8 email, obviously, the captain wasn't receiving some of the ops
9 memos that I sent to them.

10 What I do typically, I add -- I put all of the ship's
11 separate email addresses into my own group and they had changed
12 that email address and apparently I hadn't noticed or got the
13 word. I don't recall exactly why, but when I was checking the ops
14 memos on board the vessel, I realized that a few of the ops memos
15 or the quarterly safety newsletters that were recently sent out,
16 that they had not received yet. And then investigating into that,
17 I found out that they were sent to the wrong email address. We
18 had to change over the email address from our shore side going to
19 the ship from my group.

20 Q. So we've learned about how the BVS weather information is
21 communicated to the ship. It's also by email. We've learned that
22 those emails go directly to the captain and then the captain of
23 the vessel has to forward them to the bridge. Could this
24 email issue that you're identifying here in your audit have
25 anything to do with the transmission -- could it be the same

1 issue? Is it possible that emails used to go multiple email
2 addresses on a ship and then the same thing you identified here
3 caused one of them to drop off from AWT's emails?

4 A. I don't recall. I don't believe it. I would feel that if
5 the ship wasn't receiving a message that they were expecting that
6 they would notify somebody from the company to ask why they're not
7 receiving these messages. The emails that we had sent them with
8 an ops memo and a quarterly safety newsletter, they were not
9 expecting.

10 Q. Item Number 2 under your observations states that the ship
11 has put in place a ship-specific critical equipment list. How did
12 you come to realize that the ship didn't have a ship-specific
13 critical equipment list?

14 A. That's one of the questions in the audit, that I asked the
15 chief engineer to show me his critical equipment list.

16 Q. So you said chief engineer. Would the engineering department
17 be the only department that would have a critical equipment list
18 or would there be one for the deck side, the nautical operation,
19 side as well? The bridge.

20 A. It would usually be -- it would be the same, one in the same
21 critical equipment list that I would -- I could've asked the chief
22 mate or the captain the same question, but I chose to ask the
23 chief engineer for that general question and he couldn't provide
24 me the ship-specific critical equipment list at the time.

25 Q. And you identified that lack of a ship-specific critical

1 equipment list as an observation rather than a nonconformity. How
2 do you come to the determination whether to treat something as an
3 observation versus a nonconformity?

4 A. At the time, I looked at the, like I said, in past reports,
5 some people's nonconformities or even some people's observations.
6 I tend to address all the observations at the time and later on
7 make sure that they follow through. If the observation isn't
8 followed through, then I'll raise it to a nonconformity at the
9 next audit. It depends on the level of concern I have there.
10 That critical equipment list, they had the generic critical
11 equipment list, but they just didn't have some of the ship-
12 specific there. I didn't feel that that was serious enough to
13 raise to a nonconformity at the time.

14 MR. REID: Captain, could we take a quick break, sir? We've
15 been going for a little while here.

16 CAPT NEUBAUER: Yes. The hearing will recess and reconvene
17 at 5:00.

18 (Off the record at 4:50 p.m.)

19 (On the record at 5:03 p.m.)

20 CAPT NEUBAUER: The hearing is now back in session.

21 At this time we're going to resume the line of questioning
22 from Commander Denning.

23 BY CDR DENNING:

24 Q. Captain Lawrence, I believe we were talking about how you
25 come to the determination of whether an issue is determined to be

1 an observation or a nonconformity. You said it depends on level
2 of concern. Feel free to continue.

3 A. Well, there's actually a definition of nonconformity and
4 observation inside our safety management system. I can't recall
5 the exact wording, but basically a nonconformity would be a
6 failure, within our system, to follow the procedures. An
7 observation would be something that is not quite a failure in the
8 -- within our safety management system at this time.

9 Q. You're referring to the ops manual for vessels, the document
10 you're looking at, sir?

11 A. That is correct.

12 Q. Is there any business reasons, any advantage or disadvantage
13 to treating something as an observation versus a nonconformity?

14 A. No.

15 Q. Was that particular observation regarding the ship-specific
16 critical equipment list corrected prior to the loss of the *El*
17 *Faro*?

18 A. I don't recall. I would assume so, but I don't recall at
19 this point.

20 Q. We talked a lot during these hearings about the anemometer on
21 board *El Faro*. Do you know if the anemometer was considered
22 critical equipment prior to the loss of the *El Faro*?

23 A. I do not know.

24 Q. What do you use to determine what risks need to be addressed
25 specifically in the safety management system?

1 A. We have procedures on risk assessment. We actually have a
2 formula for risk assessment, a formula of severity versus
3 frequency and depending on whether it's an acceptable risk or not.

4 Q. And is that formula included in the OMV?

5 A. Yes, it is. In addition, we also have job hazard analysis as
6 another risk assessment tool, as well.

7 Q. Is there any guidance from the flag state, in this case the
8 U.S. Coast Guard, on specifically how to treat one issue or
9 another as an observation or a nonconformity? Is there any
10 specific guidance in that regard?

11 A. They're in the ISM code. There is, but I don't recall as far
12 as the C.F.R. or the Coast Guard.

13 Q. The ISM code is broad, would you agree?

14 A. Yeah, in certain points it is. Yes.

15 Q. And to your knowledge, the Coast Guard has not, either
16 through regulation or in NVIC or any other guidance, issued any
17 specificity to companies on how to guide their safety management
18 system process?

19 A. I don't recall.

20 Q. Thank you, sir. Do you consider weather to be a risk to a
21 ship that should be addressed in the safety management system?

22 A. Yes.

23 Q. And do you believe that's adequately addressed in TOTE's
24 safety management system?

25 A. Well, we give the guidance on how to address it. Like I

1 said, we have a risk assessment process, so it's up to the vessels
2 to actually do the assessment.

3 Q. In the conclusion section of your audit, you say auditor was
4 able to interview and speak with officers and crew from all
5 departments on board and found them all to be knowledgeable of our
6 safety management -- of our management system, SQE, and policies
7 and procedures. TSI safety management system appears to be fully
8 implemented and working well aboard the SS *El Faro*. Do you stand
9 by those conclusions, sir?

10 A. Yes.

11 Q. You go on to say the auditor would like to thank the officers
12 and crew of the SS *El Faro* for their cooperation and their level
13 of preparedness for this audit. Job well done by all. Again, you
14 stand by that, sir?

15 A. Yes, sir.

16 Q. Do you believe that the safety management system in place
17 prior to the sinking of the *El Faro*, not just the words in the OMV
18 or the EPMV, but the audits and everything else that constitutes a
19 safety management system, do you believe that all, as a whole,
20 constitutes an effective system?

21 A. Yes.

22 Q. As we read in the VDR transcript, if crew members had
23 reluctance to bring up safety issues at shipboard safety meetings,
24 can you connect the dots for me on how that system could be fully
25 implemented and successfully implemented?

1 A. I believe that's an isolated case and the safety management
2 system, by definition, is continuous improvement and the safety
3 culture is a journey with every company. It's continuous. So
4 it's just continuing on that education and assuring everybody
5 understands it fully.

6 Yeah. So one other thing I mentioned is that we're getting
7 feedback. We're getting the safety meeting reports. We're
8 getting near-miss reports and we're getting job hazard analysis.
9 We've got a lot of safety programs that are incorporated into our
10 safety management system. We're getting master's reviews. We
11 have a quarterly ISM check that has to be done by the officers and
12 signed off on the ship there, that they've looked at all different
13 aspects of our safety management system on a quarterly basis and
14 then they report back to us on that and send that documentation in
15 to the office, as well. And that included plus the external
16 audits and the internal audits that, to me, help -- a successful
17 safety management system in place.

18 Q. So what do you think you can do, as the DPA, the director of
19 fleet safety, the person who oversees the safety management system
20 for TOTE, to change the philosophy of anyone on board who has any
21 reluctance to bring up safety issues within the organization?

22 A. Well, first I'd have to identify those specific individuals,
23 which again I don't believe is spread throughout the fleet. And
24 it's just a continuous -- once again the word continuous
25 improvement, which is a key aspect of safety management systems,

1 and continuous education, continual conversations, education, and
2 making sure the onboard leadership is doing the same thing.

3 CDR DENNING: Thank you, Captain Lawrence. I have no further
4 questions. Mr. Fawcett, I believe, has questions for you now.

5 CAPT NEUBAUER: Mr. Fawcett, before we begin that new line,
6 just for planning purposes, Mr. Lawrence, are you able to come
7 back tomorrow morning if we -- in case we go over today?

8 THE WITNESS: Yes.

9 BY CAPT NEUBAUER:

10 Q. Before we go to the new line, I want to double back on the
11 phone call that was discussed on the VDR and just ask a couple
12 additional questions, if we can go back to that frame. I believe
13 during your first MBI testimony, you testified that you couldn't
14 recall exactly where you were when you spoke with Captain Davidson
15 during the accident voyage; is that correct?

16 A. I'm sorry, could you repeat that?

17 Q. I believe during the first MBI testimony I asked you if you
18 remembered where you were physically when you talked to Captain
19 Davidson during the accident voyage. Do you recall that?

20 A. Yes, I was in my kitchen at my home.

21 Q. Thank you. I don't remember that answer, so I think that
22 clarifies it for me. I'm curious about the delay that occurred
23 during the call center calls. It appears to me like he tried
24 multiple numbers. Do you have any insight into what was going on
25 during the four different hold periods?

1 A. From the outside it does look -- obviously, if you listen to
2 the operator's tape and the frustration that appeared with the
3 captain, but the system was working exactly like it's designed at
4 that time. As I testified in my previous -- I think at one of the
5 hearings, the operator takes the call. Then she's supposed to
6 hold the captain on the phone and actually sends out an email and
7 a text to all of our emergency response team. It goes out to
8 every one of them.

9 And at the time, in this situation she has to get the -- once
10 he says they have an emergency, then she actually puts the phone
11 over to another operator, who is more familiar with emergency
12 situations and emergency call sequence. And that day that
13 operator was instructed to take down the information that she was
14 requesting from the captain, in case she drops the call or loses
15 the call, so at least she has the basic information that she was
16 asking him at the time.

17 And then, at that time there, that's when she connects him to
18 the first -- we get a calling down of our emergency response team
19 list, where I was on the top of the list. And at that call, too,
20 you didn't bring it up before, you know, when he left a voicemail
21 with me, I had picked up that voice message immediately on the
22 last frame they just listed. Once I listened to the message, I
23 was attempting to call him back at the same time that the call
24 center was trying to get through to me. So that's when I tried my
25 call to the ship and I picked up the call center call on my cell

1 phone.

2 Q. Who also took -- received the emails and text alerts from the
3 call center?

4 A. Everybody on the emergency response team. I'd have to look
5 through the list. There's about seven of us in the office that
6 are on the emergency response team.

7 Q. Did they try to contact you on any other numbers other than
8 your cell phone?

9 A. Not that I'm aware.

10 Q. And you only had one missed call on your cell phone and a
11 phone message; is that correct?

12 A. That's correct.

13 CAPT NEUBAUER: At this time I'd like to go the other parties
14 in interest. TOTE, do you have any follow-up questions?

15 MR. REID: If there's going to be a new line of questions,
16 sir, we'll reserve questions until the end, at this point.

17 CAPT NEUBAUER: Mrs. Davidson, any questions at this time?

18 MR. BENNETT: The same, Captain, we'll reserve.

19 CAPT NEUBAUER: ABS?

20 MR. WHITE: No questions, Captain.

21 CAPT NEUBAUER: All right, we'll start a new line of
22 questioning with Mr. Fawcett.

23 BY MR. FAWCETT:

24 Q. Yes. Captain Lawrence, thanks for being here. I'm going to
25 turn our attention to the topic of the safety of operations and my

1 first question is, as safety manager, you had a candidate that you
2 thought was appropriate for the safety coordinator position; is
3 that correct?

4 A. That's correct.

5 Q. Were you disappointed that she wasn't hired for that
6 position?

7 A. I understood the reasoning at the time.

8 Q. What was the reason?

9 A. To my recollection, we -- at the time, I think we were
10 looking at possibly a minor layoff in the office. We're a very
11 small office there, 30-something people there, and the perception
12 of hiring on somebody new, my understanding from our executive
13 team, that hiring on somebody new at the same time that we
14 possibly may have to let somebody go, we wanted to look at the
15 other options at that time and we came up with an acceptable
16 option, which was to distribute some of my duties within the
17 operations team, some of the members of the operations team that
18 apparently had the room to address -- take over some of those,
19 some of my duties.

20 Q. As the safety manager, do you make suggestions to management
21 about the safety objectives and the budgetary priorities for
22 managing the safety of TOTE vessels?

23 A. Not at that time I didn't, no.

24 Q. So they did not seek your input about what the safety
25 objectives of the company with respect to vessel operations were?

1 A. No, I'm sorry. I'm looking at my position now and I have a
2 lot more involvement in actually the budgetary for our department.
3 Back at that time, I did have some input as far as some specific
4 safety programs and other parts of the budget that my position
5 would be involved with.

6 Q. So extensive engineering was required for the conversion of
7 the *El Faro* to carry containers, and likewise to be reconverted to
8 the Alaska service. Would you say that is correct?

9 A. I didn't have the knowledge at the time, no.

10 Q. Would you say that it would require engineering studies to
11 convert the *El Faro* to carry containers on the deck, such as
12 installing transverse beams and so forth?

13 A. Again, I wasn't involved with those discussions, but I
14 believe you're correct.

15 Q. Given a careful engineering review and planning, was there
16 anything that would've prevented the *El Faro* from being fitted
17 with enclosed gravity fall or enclosed stern launch pre-falling
18 lifeboats?

19 A. I have no knowledge of that.

20 Q. In the same manner, was there anything that would've
21 prevented -- and this is at the time of the accident and the time
22 period leading up to the accident, that would've prevented the *El*
23 *Faro* from engaging a weather routing service to assist the master
24 of the vessel in executing his duties and ensuring the safety of
25 the vessel?

1 A. No, nothing preventing that.

2 Q. We, in previous testimony, have determined that when the *El*
3 *Faro* sailed, shoreside personnel did not know the route the ship
4 was taking. They were only able to know a geographic position at
5 noon, in the noon reports. Was there anything that prevented the
6 ship being fitted -- or the office being fitted with a graphical
7 display where you would know the position of the ship from AIS
8 transmissions?

9 A. I wouldn't be involved. Well, I shouldn't say wouldn't be
10 involved, but that would not be my decision and I'm not aware of
11 anything that would prevent that.

12 Q. Was there anything that would have prevented the *El Faro* or
13 the *El Yunque* from reaching out to you, as a nautical operations
14 expert, and asking for your assistance in voyage planning?

15 A. They could always reach out to me for any advice and I would
16 make sure that that would get addressed through the proper people
17 in the office, whether it be myself or somebody else.

18 Q. So in terms of was there anything that prevented them, what
19 would be your answer?

20 A. No.

21 Q. Commander Denning and you had a discussion about a tragic
22 event on the *El Faro*, where a mariner lost his life and the crew
23 of the *El Faro* was engaged with heroic efforts to save his life.
24 Did TOTE know about a preexisting medical condition for the
25 seafarer before he reported to the ship?

1 A. My recollection is they did not.

2 Q. How does TOTE know that a seafarer reporting for duty is
3 fully fit for duty? And by that I mean not under a doctor's care,
4 not seeing a medical specialist or taking prescription drugs or
5 other medications.

6 A. My understanding is he's required to undergo a physical
7 through the union and provide the captain with that information
8 when he signs on a vessel.

9 Q. Are you talking about a physical prior to reporting or for
10 his credentials?

11 A. I can't answer that. I'm not sure exactly the difference
12 between the unlicensed and the licensed requirements for that.
13 That would be a crewing issue.

14 Q. So you sailed as a master mariner and you have an extensive
15 seagoing career; is that correct?

16 A. Yes.

17 Q. There were three calls to Captain Davidson on the evening
18 before the vessel was lost, two of them shortly before midnight
19 and one of them after midnight. Is there anything that would
20 prevent a mate on watch from picking up the phone and simply
21 saying captain, to the bridge?

22 MR. REID: Can you repeat the question?

23 THE WITNESS: Yeah.

24 MR. REID: I'm not sure I understand that.

25 BY MR. FAWCETT:

1 Q. Certainly. In other words, at any time can a mate on watch
2 pick up the phone and simply say captain, to the bridge? And by
3 that I mean the intention is to summon the captain to the bridge
4 immediately.

5 A. No reason why he could not.

6 Q. During your seagoing career as a master, if the phone rang
7 and someone said captain, to the bridge, would you question the
8 mate about why they wanted you to the bridge or would you
9 immediately head to the bridge?

10 A. I can't speculate on that answer at the time, but I would
11 definitely respond to that. I would feel I'd come to the bridge.

12 Q. So you not only audit the performance of vessel crews for the
13 company, but you are a master mariner. So on the evening watch,
14 the third mate -- or correction, the second mate sees flashes fore
15 and on the ship. Some were aboard the vessel which could not be
16 determined. What would you expect to happen next?

17 A. I really can't answer that. I wasn't there at the time. I
18 really don't know all of the circumstances to give you a proper
19 answer to that.

20 Q. Would you expect that to be discussed with your relief? In
21 other words, during the course of, say it were me, my watch, I see
22 flashes fore and on the ship that are of an unexplained nature,
23 would you expect me to pass that to my watch relief if that were
24 you?

25 A. Again, I wasn't there at the time. I don't know the

1 circumstances, they could vary, but personally, I would think that
2 I would pass that along to the next relief.

3 Q. Turning our attention to the port mates, are you aware of how
4 port mates function for TOTE in Jacksonville and in San Juan?

5 A. I'm aware of the port mates, but I'm not involved with their
6 rotation and exactly what they do --

7 Q. Do you attend flash meetings, executive flash meetings?

8 A. Yes.

9 Q. In the month of September, there were no port mates after the
10 1st of September in Jacksonville. Were you aware of a discussion
11 about the absence of the port mates and what TOTE could do to
12 manage that problem and get port mates aboard the ship?

13 A. No.

14 Q. So we talked about -- Commander Denning talked about the STCW
15 records and we have seen STCW records that are not signed. Who at
16 TOTE has the responsibility to examine those records to ensure
17 that the vessel is in compliance with the rest requirements?

18 A. That's the captain's responsibility. If there is an issue,
19 they can call me in the office as to what our safety management
20 system says, and I would discuss that with the other operational
21 folks, the director of ship management. But it's the captain's
22 responsibility.

23 Q. Who holds that ultimate responsibility?

24 A. The person, themselves.

25 Q. There's another form that's required to be filled out on

1 board ship and that is a certification for illness and injury and
2 it's required to be filled out at the completion of a tour aboard
3 a TOTE vessel. Who monitors those to make sure that there were no
4 illnesses or injuries that took place on a vessel while a crewman
5 was aboard?

6 A. That would be our HR department.

7 Q. Have you ever assessed the quality of the tracked training
8 for bridge team management?

9 A. I know it's part of our tracked training, but I don't assess
10 it, no.

11 Q. So the ship participates in a voluntary weather observation
12 program. Are you familiar with that from your years of going to
13 sea?

14 A. Yes, the AMVER system. Yes.

15 Q. Is the AMVER system the voluntary weather reporting program?

16 A. No, I was thinking of AMVER. Are you talking about the NOAA
17 reporting?

18 Q. Yes, sir. So I'd like to sample one component of *El Faro*
19 operations. We heard testimony that twice a day weather reports
20 were sent out from the *El Faro*. In examining the records of the
21 *El Faro*'s INMARSAT transmissions between the months of April and
22 the accident day, that's approximately maybe 150 days at sea.
23 During that time period, there were less than two dozen reports
24 sent ashore. We also heard testimony yesterday that the second
25 mate -- regarding the second mate and if you'll turn your

1 attention to Coast Guard Exhibit 266, page 19, at 14:16:05 on --

2 MR. REID: Sir, can you wait until we get to the page,
3 please? Thank you.

4 MR. FAWCETT: 266.

5 UNIDENTIFIED SPEAKER: Is that page 19?

6 MR. FAWCETT: Yeah, it's going to be further up. Stand by
7 while we find that for you, Captain. I'll read it aloud, sir.

8 MR. REID: I'd prefer to have it in front of him, if that's
9 okay, sir.

10 MR. BENNETT: I would, as well.

11 MR. FAWCETT: Yes, thank you, gentlemen. Page 129. And I
12 apologize. At that point at 14:16, the second mate is talking on
13 the afternoon of the 30th of September. "I sent a weather report
14 I hope it works 'cause I've never had to it before. Oh but it's
15 1400 and 1800 weather report. Uh (send as) an email (I guess)
16 unintelligible." The captain says "yup. email it out."

17 So what I'd like to do is turn your attention to Coast Guard
18 Exhibit 277, which I'll ask Commander Yemma to put up on the
19 screen.

20 BY MR. FAWCETT:

21 Q. You'll see the track line. That will do, sir. The green
22 track is the track of the *El Faro*. The red segment of the track
23 is the position of the *El Faro*. And if you'd look down over
24 mainland Cuba, there is a red dot. The message that was sent out
25 puts the *El Faro* directly over the landmass of Cuba. Looking at

1 that graphic display, and we have the message and the components
2 of the message broken down later, as an auditor, how do you assess
3 the quality of that weather report?

4 A. Again, obviously, there's a mistake.

5 Q. Is it useable or not useable?

6 A. At that specific time, I would say that it'd be non-useable.

7 Q. For the record, for the month of August, there was one report
8 that went out. For the month of September, this is the singular
9 report that came out from the *El Faro*.

10 CAPT NEUBAUER: Mr. Fawcett, how did you come to that
11 determination?

12 MR. FAWCETT: Sir, we scanned visually and read every
13 outbound and inbound email to the *El Faro*, incorporated their
14 outbound messages for SS *El Faro* and they were classified as
15 weather reports. This particular weather report was analyzed, the
16 structure of the report, to determine the position area. The
17 National Weather Service was hoping that ships within 300 miles of
18 a tropical system center would send in weather reports. What drew
19 our attention to this was the *El Faro* was thrown out by the
20 National Hurricane Center because the ship's position was over the
21 landmass of Cuba.

22 THE WITNESS: Sorry, what was the question?

23 MR. FAWCETT: I asked you about the quality and whether it
24 was useable or not useable. The captain asked me a question about
25 where we got it from, so I did not have a question for you, sir,

1 on that topic.

2 MR. BENNETT: Excuse me. Within that exhibit there's a
3 translation of the text page. Who translated the text?

4 MR. FAWCETT: The text was translated using the message
5 format and the available scheme to break that message down to
6 determine what the individual components of the message are. And
7 if you'll turn to, I believe, the last page, the breakdown in the
8 beginning of the message that's sent to the *El Faro*, it indicates
9 the latitude and longitude of the vessel at the time.

10 MR. BENNETT: That wasn't my question. My question was who
11 translated the text?

12 MR. FAWCETT: The United States Coast Guard translated the
13 text and prepared the exhibit.

14 MR. BENNETT: Thank you.

15 BY MR. FAWCETT:

16 Q. Moving on, sir, who manages the safety oversight of terminal
17 operations in either Jacksonville or San Juan?

18 A. That'd be TOTE Puerto Rico, TOTE Maritime Puerto Rico.

19 Q. What about Jacksonville?

20 A. TOTE Maritime Puerto Rico.

21 Q. Do they have a safety department?

22 A. They have an operational department, but I'm not sure of the
23 specific full organization of the terminal.

24 Q. Do you know if they conduct audits of the ship-to-shore cargo
25 loading operation?

1 A. I don't know.

2 Q. Can you tell me what TOTE's position is if somebody is upon a
3 vessel and taking a prescription medication, to include narcotic
4 pain relief? What is the policy for the vessel crew to deal with
5 an individual from the standpoint of -- I'm a little confused in
6 the SMS system because it says, on the one hand, no person may
7 work on the vessels while using narcotics. And then I'm looking
8 for the specific guidance for prescription medication used aboard.
9 How does that work?

10 A. They're expected to notify the master, when they sign on
11 board, if they are using any prescription medications. If it's a
12 narcotic, there is a list that I'm not familiar with off the top
13 my head, that the captain could check to see if it's an acceptable
14 medication that's allowed for people to sail on a vessel.

15 Q. Is there a provision for the master to be required to control
16 the narcotic and lock it in the vessel's safe?

17 A. I'm not sure if there's a provision for that. I would say
18 only if the person's not going to be taking the narcotics.

19 Q. So turning to, towards the TOTE drug testing policy, on
20 September 25th, the vessel -- the shoreside personnel in your
21 division received notification that the *El Faro* was to conduct
22 random testing. Are you aware of that?

23 A. I have seen that, yes.

24 Q. The ship was notified at sea that random testing would take
25 place on September 28th. Are you aware of that?

1 A. I don't recall specifically. It was not myself that notified
2 them.

3 Q. And I turn your attention to Coast Guard Exhibit 302, page
4 10. We'll put it on the screen. It is an INMARSAT email. It was
5 sent to the *El Faro* on September 25th, about random drug testing
6 can take place on the 28th. Have you had the time to look at
7 that, sir?

8 A. I'm looking at it. I'm reading it right now.

9 (Pause.)

10 THE WITNESS: Okay.

11 BY MR. FAWCETT:

12 Q. Do you manage the drug testing program and have oversight of
13 that?

14 A. I don't manage it. I didn't manage it at that time, no.

15 Q. What about direct oversight of the drug testing program from
16 the standpoint of supervision of the program or someone who's
17 carrying out the program?

18 A. I have oversight, yes.

19 Q. So would this be in compliance with policy, to notify the
20 ship 3 days early that there will be a drug test?

21 A. It's not in the policy, no.

22 Q. On page 10 there is a line in the second paragraph
23 instructing the captain -- and that's once again Coast Guard
24 Exhibit 302, page 10, MARSAT email. It instructs the captain of
25 the *El Faro* to notify the crew the night before so they can get

1 ready for the drug test. Is that in compliance with policy?

2 A. I'd have to look at the specific policy to see, but that's
3 typically the way it has been done in the past, to ensure that the
4 captain is the only one aware of the -- that the random drug test
5 is going to be happening.

6 Q. Coast Guard Exhibit 296, page 22. And this relates to an
7 internal audit that took place on the *El Morro*, dated 2013, and it
8 was repeatedly flagged by the auditor. And I'll read it to you.
9 Internal audit, SS *El Faro*, September 3rd.

10 MR. REID: Sir, I hate to interrupt. That's the SS *El Morro*.

11 MR. FAWCETT: Thank you for the correction.

12 BY MR. FAWCETT:

13 Q. September 3rd, 2013, paragraph 7. "The master's standing
14 order folder was in good order and signed. The master's standing
15 order had not been updated to incorporate the new policy regarding
16 notification during cargo operations when list and trim limits
17 have been reached." Did you ever order the *El Faro* to that
18 standard?

19 A. No.

20 Q. Do you have any idea, like a legacy from your predecessors,
21 why that policy was created?

22 A. No.

23 Q. The Polish riding crew. Did you have knowledge, before the
24 accident, that a Polish riding crew was being placed aboard *El*
25 *Faro*?

1 A. No.

2 Q. Coast Guard Exhibit 004, page 8. This is an email from you
3 to Captain Davidson, August 26th, 2015. We've discussed this
4 before, so I'll just paraphrase for a moment. It says regarding
5 Erika, good day, Captain. I realize that you have been in various
6 communications with Jim Fisker-Anderson and SSL regarding plans,
7 ops, and preparation for Erika and I have been copied in the same.
8 However, to ensure all are on the same page and nothing is missed
9 in the risk assessments and action area, please send me a detailed
10 email with your preparedness/avoidance --

11 MR. REID: Sir, can we get the -- get this paragraph in front
12 of us?

13 MR. FAWCETT: Yes, you can. I'm sorry, page 59.

14 BY MR. FAWCETT:

15 Q. And it continues, and update daily until all clear. Thanks
16 and regards, John. Were your expectations for the *El Yunque* and
17 the *El Faro*, for the accident voyages for the *El Faro* that
18 commenced on the 29th of September, the same?

19 A. No.

20 Q. And why not?

21 A. As I testified earlier about this email, I said I actually
22 couldn't recall why I had sent that to the captain, other than the
23 fact that I had seen the other emails that are mentioned here. I
24 go into other parts of operations and I felt that I should be
25 included in those emails. So that was the intent of this email.

1 CAPT NEUBAUER: Mr. Fawcett, I want to clarify one thing from
2 the questions here. I believe you said accident voyages for the
3 *El Yunque* and *El Faro* and I believe you mean storm voyages that
4 were around 30 September for Hurricane Joaquin; is that correct?

5 MR. FAWCETT: Yes, sir. And I did clarify that it was the
6 accident voyage for *El Faro* and the other voyage was the -- I will
7 classify it as a northbound voyage to Jacksonville that the *El*
8 *Yunque* transited.

9 CAPT NEUBAUER: Was that your understanding of the question
10 as he originally asked it, sir?

11 THE WITNESS: I'm sorry, what's the question again?

12 BY MR. FAWCETT:

13 Q. Did you require Captain Davidson to keep you advised, as it
14 is indicated in that message, for the 29 September voyage?

15 A. No.

16 Q. Have you met Captain Stith before?

17 A. Captain Stith or Captain Davidson?

18 Q. Captain Stith, the captain of the *El Yunque*.

19 A. Yes, I believe I had met him prior to the storm. Yes.

20 Q. He had been master on the *El Yunque* for less than a month.
21 Did you reach out to Captain Stith and ask him to comply with the
22 same requirements in this message?

23 A. Not that I recall.

24 MR. FAWCETT: Captain, I think this might be a good time to
25 break, if that's good for you, sir.

1 CAPT NEUBAUER: Thank you. I agree. The hearing will now
2 adjourn and reconvene with Captain Lawrence at 9:00 a.m. tomorrow
3 morning.

4 (Whereupon, at 5:47 p.m., the hearing was recessed, to
5 reconvene, Tuesday, February 14, 2017 at 9:00 a.m.)

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CERTIFICATE

This is to certify that the attached proceeding before the

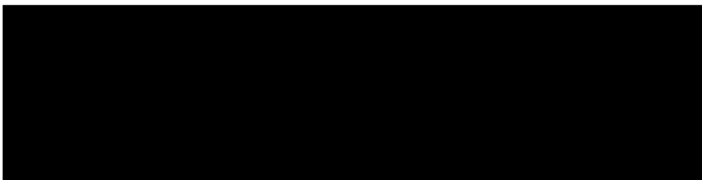
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: MARINE BOARD OF INVESTIGATION
INTO THE SINKING OF THE EL FARO
ON OCTOBER 1, 2015

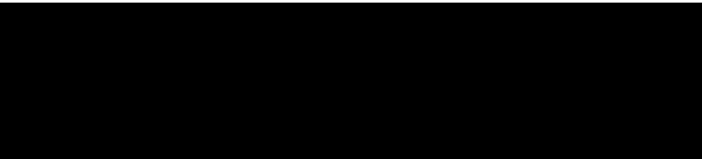
PLACE: Jacksonville, Florida

DATE: February 13, 2017

was held according to the record, and that this is the original,
complete, true and accurate transcript which has been compared to
the recording accomplished at the hearing.



U.S. Coast Guard
Official Reporter



Transcriber