

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD

In the Matter of:)
)
)
SS NORWAY) DCA 03 MM 032
)

Miami, Florida

Tuesday,
May 27, 2003

The above-entitled matter came on for the
Interview of Finn Nicolaisen, pursuant to Notice, at
11:20 a.m.

APPEARANCES:

For the National Transportation Safety Board:

TOM ROTH-ROFFY
BRIAN CURTIS
NANCY MCATEE

For the United States Coast Guard:

KEN OLSEN
CARLOS PAILLACAR

For Miami Dade Homicide:

JOHN BUTCHKO

For Norwegian Cruise Lines:

STEVE CMAR

Also Present:

RICHARD LEHRER
DAN FARKAS

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P R O C E E D I N G S

11:20 a.m.

1
2
3 Whereupon,

4 FINN NICOLAISEN

5 having been first duly sworn, was called as a witness
6 herein and was examined and testified as follows:

7 MR. ROTH-ROFFY: The time is about 11:20 on
8 Tuesday, the 27th of May 2003. My name is Tom Roth-
9 Roffy, I'm an Accident Investigator with the National
10 Transportation Safety Board in Washington, D.C.

11 We are here to investigate the accident that
12 occurred aboard the steamship Norway on Sunday, May 25.

13 The reason we've asked you here is because we believe
14 that you have information that may be useful in our
15 investigation of the accident.

16 What I'd like to do now is to ask each of the
17 interviewers in the room to please identify themselves
18 and their affiliation.

19 MR. CURTIS: Brian Curtis, NTSB, Marine
20 Engineering Accident Investigator.

21 MR. PAILLACAR: Carlos Paillacar, U.S. Coast
22 Guard Office of Investigations.

23 MR. OLSEN: Ken Olsen, Coast Guard
24 Headquarters, Office of Investigations.

25 (Inaudible.)

1 MR. BUTCHKO: Detective John Butchko with the
2 Miami Dade Police Department, Homicide Bureau.

3 MR. CMAR: Steve Cmar, Norwegian Cruise Line.

4 MR. ROTH-ROFFY: Okay. The way I'd like to
5 proceed is for you to describe how you became aware of
6 the explosion and what you did after you became aware
7 and then after that, we'll ask you specific questions
8 about the boilers.

9 If you would, sir, go ahead and proceed.

10 THE WITNESS: I was waking up at about 6:40
11 in the morning. There was no power in the cabin, the
12 light was out, the ventilation fan was stopped, so I
13 was jumping into my boiler suit and getting my
14 flashlight and my adjustable spanner and going down to
15 the engine room.

16 There is a ladder going from the (inaudible)
17 and direct down to the boiler, as you know. I used
18 that. I was proceeding forward -- no, aft, to the aft
19 boiler room, but I was not able to enter, the
20 watertight door was shut and I was told by the guy in
21 the forward engine room there had been an explosion in
22 the boiler room.

23 I went up to the control room, talking to the
24 chief and after being up there talking to him for a
25 minute I went down to the boiler room to see if I could

1 find out what had happened.

2 There was people from the fire department
3 down there in the boiler room. When I was walking
4 around in the boiler room to see what it looks like, I
5 see the wall of boiler was blown out in the back of the
6 boiler and on the starboard side of the boiler. And I
7 also see that the two heaters that is placed on the
8 port side boilers they are placed in the aft of the
9 boiler room, beside Boiler 23, have been blown away.

10 The chief was coming down, I was trying to
11 close some water leaking in the boiler, aft boiler room
12 and air leaking, shut it off. When that was done, we
13 went up to the control room again because there was
14 nothing else we could do down there, just try to stop
15 the leaking and stop the air leaking.

16 EXAMINATION

17 BY MR. ROTH-ROFFY:

18 Q Okay. What is your normal work hours?

19 A Normal work hours is from 8:00 to 12:00.

20 Q Is that a watch that you stand?

21 A Yes. Watch.

22 Q In which space do you stand your watch?

23 A We have to go around and check everything.

24 From back of the ship at the propeller shaft we have to
25 check to the forward boiler room and forward axillary

1 engine.

2 Q Could you tell us the names of the persons
3 and the position titles, the people that are on your
4 watch with you?

5 A That was Hans Luning, he was placed in the
6 control room. Down in the engineer room there was one
7 guy called -- you do not have this in English?

8 MR. CMAR: Do you want me to spell it for the
9 record?

10 MR. ROTH-ROFFY: Yes.

11 MR. CMAR: The spelling is J-a-k-o-b is the
12 first name, the last name is S-o-e-b-o.

13 BY MR. ROTH-ROFFY:

14 Q He was a second or third --

15 A He was the second ranking.

16 Q Hans Luning?

17 A He was in the control room and there was a
18 third engineer, his name is Rathore.

19 Q Is there any way you can write that down?

20 MR. CMAR: The spelling is R-a-t-h-o-r-e,
21 middle name R-a-m, last name is N-a-r-e-s-h.

22 UNKNOWN: Actually, I think his last name is
23 R-a-t-h-o-r-e, according to the crew list.

24 THE WITNESS: Ram Naresh Rathore.

25 BY MR. ROTH-ROFFY:

1 Q What was his job?

2 A Control engineer.

3 Q He was assigned where?

4 A He was walking around, the same as me, around
5 in the engine room, checking.

6 Q The second engineer in the engine room was?

7 A The other one was Jakob, he was doing the
8 same.

9 Q And Hans Luning?

10 A He was in the control room.

11 Q Is he a third engineer or a second?

12 A A second engineer.

13 Q So we have three second engineers, including
14 you?

15 A Yes, and (inaudible), then there was the
16 stoker.

17 UNKNOWN: Just so we're clear, this was
18 during your 8:00 to 12:00 watch?

19 THE WITNESS: Right. The stoker was Erik
20 Leanillo, Filipino.

21 MR. CMAR: L-e-a-n-i-l-l-o.

22 THE WITNESS: The waterman was name of Dean
23 Cuenco.

24 MR. CMAR: C-u-e-n-c-o.

25 UNKNOWN: First name?

1 THE WITNESS: Dean.

2 BY MR. ROTH-ROFFY:

3 Q Was anybody else on watch with you?

4 A Yes, in forward engine room, but I do not
5 remember his name, because he's new on the watch.

6 Q What was his position title, stoker?

7 A No. I think he's a motorman.

8 Q Motorman?

9 A Yes. Working the forward engineer room,
10 keeping an eye on the diesel generators forward.

11 Q Which engineer was assigned to the boiler
12 room, if any?

13 A During -- running at high seas there is no
14 specific man in the boiler room. Not any special
15 engineer. We are all supposed to be going back and
16 forth.

17 Q On the evening before the accident, from 8:00
18 in the evening until midnight you were on watch?

19 A It was around -- I worked from 8:00 to 12:00
20 May 24.

21 Q What were you working on that evening? Were
22 you working throughout the whole engine space or were
23 you --

24 A I was keeping an eye on the whole engine
25 area, walking from the forward engineer room to aft and

1 back.

2 Q During your watch did you notice any unusual
3 conditions with the equipment?

4 A No, I didn't. Nothing that I can recall.
5 There was nothing wrong when I was down there.

6 Q Which boilers were in operation?

7 A Both Boilers 22, 23 and 24.

8 Q How many burners in each boiler were running?

9 A At the moment of the accident it was four
10 burners only.

11 Q During your watch the previous --

12 A It was five, because at sea the fuel flow is
13 about between four and five ton an hour, but when you
14 stay at the pier the fuel flow is only 1.5 ton an hour
15 and we use to disconnect one boiler, remove the boiler,
16 close manually the valves, the fuel valves and the
17 steam valves and run on four burners to keep the fuel
18 pressure between nine and ten kilo.

19 MR. OLSEN: Is that fuel pressure --

20 MR. ROTH-ROFFY: I'm sorry, Ken. What I'd
21 like to do is I'll ask the questions and each
22 interviewer will have their opportunity to ask
23 questions, unless it's critical that you interrupt.

24 MR. OLSEN: Okay.

25 BY MR. ROTH-ROFFY:

1 Q The fuel pressure was nine to ten kilos,
2 correct?

3 A Fuel pressure, yes. That was staying at the
4 pier. At the high seas, running at 100 revolutions it
5 was between 13 and 14 kilo.

6 Q Normally it's 13 to 14?

7 A Yes. Normal. Running on the high seas it's
8 normally 13 to 14 kilo, five burners.

9 Q What is the minimum permissible operating
10 pressure for the fuel?

11 A If the fuel pressure goes below six kilo
12 there starts to be a problem and you have to disconnect
13 more burners.

14 Q What about the operating temperature of the
15 fuel to the burners, what is that?

16 A The operating temperature is 130 degrees
17 Celsius.

18 Q Is that temperature manually regulated?

19 A Automatic.

20 Q Had you been having trouble with the
21 automatic regulator?

22 A No.

23 Q So it automatically maintains the pressure at
24 sea, in port, you don't have to touch it?

25 A Sometimes we have to touch it because the

1 automatic valve is not always closing completely, so
2 sometimes we had to close the manual steam valve and
3 then open it again. There is an alarm when the fuel
4 temperature reaches 140 degrees.

5 Q When was the last time you did work on the
6 boiler, number 23?

7 A The boiler had been running for about 220
8 hours since the last cleaning. That means about nine,
9 ten days.

10 Q Describe what you did 220 hours ago for
11 cleaning?

12 A What we did was rebuilding damaged blue ram
13 (phonetic) insulation on the boiler and cleaning the
14 water economizer, water washing on the super heater and
15 generating tubes was cleaned.

16 Q What else was done?

17 A That's all.

18 UNKNOWN: I just didn't hear what he said
19 with the tubes.

20 THE WITNESS: There was cleaning with all the
21 tubes on the boiler, but there was no work on the tubes
22 inside the boiler, only cleaning.

23 BY MR. ROTH-ROFFY:

24 Q Who actually performed that work, that water
25 washing?

1 A That is Filipino day workers. When they have
2 finished cleaning, I have to go in and check and see if
3 it's okay or if it has to be washed again.

4 Q Did you go in and inspect it after it was
5 cleaned?

6 A Yes. It was clean.

7 Q Do you know who supervised the Filipino day
8 workers? Was it you or was it somebody else?

9 A That's somebody else, because I'm off from
10 lunchtime until 8:00 and the day people is gone, so
11 there is somebody else. The Filipino have what we call
12 a number one, he is in charge of the Filipino guys and
13 will tell them what to do or not to do.

14 Q Do you happen to recall the name of that
15 number one that worked at that --

16 A That was Macaspac Vicente.

17 MR. ROTH-ROFFY: Can you help us, Steve?

18 MR. CMAR: M-a-c-a-s-p-a-c. V-i-c-e-n-t-e

19 BY MR. ROTH-ROFFY:

20 Q Who is responsible for maintaining the
21 chemical treatment of the boilers and testing?

22 A His name at the moment is John (inaudible).

23 Q Is he an engineer?

24 A A second engineer.

25 Q Which watch does he stand?

1 A 12:00 to 4:00.

2 Q Is he responsible for all four boilers?

3 A Yes. All four boilers, the steam generator
4 and the incinerator.

5 Q How long was the boiler out of service for
6 cleaning last time?

7 UNKNOWN: Boiler 23?

8 MR. ROTH-ROFFY: Correct.

9 THE WITNESS: Boiler 23 was out I believe for
10 almost three weeks. Boiler 23 was off line April 19.

11 BY MR. ROTH-ROFFY:

12 Q When was it put back on line?

13 A It was back on line May 20. At least for
14 that delay, that time that most we ran out of the blue
15 ram, we have to wait for the blue ram.

16 Q How much blue ram did you need to do your
17 refractory repairs? Pounds or kegs or however you
18 measure it.

19 A Kegs. It was using about 186 boxes.

20 Q And where did you use the blue ram? Was
21 there a lot of damage to that refractory that you
22 needed that many boxes?

23 A Yeah. It was -- but that is the wall in
24 front -- on the side of the burners, inside the boiler.

25 Q So it was the front wall. Where else was the

1 damage to the blue ram?

2 A There was some small damage on the ceiling
3 between the wall and the (inaudible).

4 Q But most was put on the front wall?

5 A Yes. Most of it was on the front wall.

6 Q Would that be like half of it or how much
7 would you say of those 186 boxes did you put on the
8 front?

9 A About 160.

10 Q Did you do any other maintenance work on the
11 boiler other than the cleaning and repair of the
12 refractory?

13 A No.

14 Q Did you do any adjustments to the registers,
15 any --

16 A The only thing we did was when everything was
17 finished rebuilding, I went inside the boiler to check
18 the distance between the burner and the defuser and the
19 defuser and the flame cone. We did not have to adjust
20 anything on that, it was normal. It is supposed to be
21 five millimeter distance within each of these spots and
22 it was.

23 Q Did you personally do that?

24 A Yes, I did it personally.

25 Q Did you do a hydro test of the tubes after

1 the cleaning?

2 A No, we didn't.

3 Q When was the last time that you did other
4 types of repair or maintenance on the boiler? What I'm
5 asking is kind of a history of the maintenance.

6 A The last time we did anything was on
7 Saturday. We have --

8 UNKNOWN: Is this on Boiler 23?

9 THE WITNESS: This is on Boiler 21.

10 BY MR. ROTH-ROFFY:

11 Q Let's start with Boiler 23 and then we can
12 talk about the other boilers as well.

13 A Okay. There has been nothing wrong with
14 Boiler 23 for the last four years. No leaking,
15 nothing.

16 Q No steam leaks?

17 A No. Only from the outside, but that's
18 normal. But inside the boiler, nothing.

19 Q When was the last time you did a hydro test?

20 A The last time I did it?

21 Q I should say when was the last time hydro
22 testing was --

23 A The last time I did it was when I was
24 finished re-tubing the bad boiler and that was in May
25 '99. That was the last time I did it.

1 Q Do you know when the last hydro was done on
2 the boiler by anybody?

3 A No. Because the book where everything is
4 recorded, somebody from the company has it. The Coast
5 Guard has some copies from the last ten weeks, but it
6 must have been before that when I was on vacation, if
7 it had been.

8 Q Would it be recorded somewhere, the last time
9 it was hydro tested?

10 A Yes. It will be someplace.

11 Q Where? Where would we look?

12 A The Coast Guard got a copy of the last ten
13 weeks, someplace in that book it had to say if it's
14 done.

15 MR. PAILLACAR: That's the book that they
16 provided us with the drawing. That was the book, the
17 repair to the boiler.

18 MR. ROTH-ROFFY: Okay, Carlos. Thank you. I
19 wasn't sure which book he was referring to.

20 BY MR. ROTH-ROFFY:

21 Q We'll take a look at that and see if we can
22 sort that out. You also have a separate book that you
23 maintain on the boilers for maintenance?

24 A This is the one, but it's written in
25 Norwegian.

1 Q We might consider having that translated.

2 A But this book is only concerning about -- as
3 you see here, log book concerning (inaudible) marine
4 re-tubing Boiler 23. That's the only thing inside this
5 book, only the re-tubing.

6 Q Only the re-tubing in 1999?

7 A Yeah. In '98 and '99.

8 Q How long have you been on the voyage or this
9 assignment?

10 A This time I've been on board now for -- I
11 start on week 14.

12 Q You're starting on week 14 now?

13 A Yes.

14 Q In the last 14 weeks what repairs or
15 maintenance have you done on Boiler 23, other than the
16 water washing in May?

17 A There is nothing. Nothing wrong.

18 Q Do you know when the last time the safety
19 valves were lifted, tested was?

20 A No.

21 Q Who does the work on the boiler management
22 automation system?

23 A That is the electronic on board.

24 Q Is there a name of a person in particular
25 that works on the boiler systems?

1 A Yes. It's two electronic engineers on board.
2 On is named Bjoern Skarstein.

3 MR. CMAR: Bjoern?

4 THE WITNESS: Bjoern Skarstein.

5 MR. CMAR: S-k-a-r-s-t-e-i-n.

6 BY MR. ROTH-ROFFY:

7 Q And the second person?

8 A The name is Sorensen at the moment.

9 MR. CMAR: Rolf?

10 THE WITNESS: Yes.

11 MR. CMAR: S-o-r-e-n-s-e-n. R-o-l-f is the
12 first name.

13 BY MR. ROTH-ROFFY:

14 Q Do you happen to know the last time that the
15 electronic engineers worked on the boiler control
16 system for Boiler 23?

17 A They have not been working on it when I have
18 been on board this time, but then I was on vacation
19 there was a German engineer working for Siemens, he was
20 on board when I was on vacation. And he is also on
21 board now.

22 Q Do you know his name?

23 A Hust Giering.

24 Q Do you happen to know what work Giering did
25 on the boiler control system?

1 A I'm not quite sure what he did. I'm not able
2 to answer on that.

3 Q How long were you on vacation last time?

4 A Eight weeks.

5 Q And during those eight weeks who was
6 responsible for the maintenance of the boilers?

7 A One named Neilsen (phonetic).

8 Q Is he currently on board the Norway?

9 A No. He's at the hotel here in Miami, waiting
10 to get on board.

11 Q Before you went on vacation, during your
12 previous assignment, were you also responsible for
13 maintenance of the boilers?

14 A Yes.

15 Q And how long was that?

16 A Ten weeks.

17 Q How long have you been assigned to the
18 Norway?

19 A Fifteen years.

20 Q During those fifteen years, have you always
21 been responsible for the maintenance of the boilers?

22 A Not always. I've been in charge of the aft
23 engine room, for the emergency diesel and the thruster
24 system, air system, aft engine room (inaudible).

25 Q Approximately when did you become the boiler

1 engineer? How many years ago?

2 A More or less since '91, '92.

3 Q And since 1991, '92 you have been always
4 assigned to the boiler maintenance?

5 A Yeah, when I am on board.

6 Q During the past 14 weeks have you done any
7 testing of the combustion automation system or the
8 safeties, the alarm systems?

9 A If there is to be taken a test, it has to be
10 done by the electronics.

11 Q Do you know if they have a regular testing
12 that they do for the --

13 A Yeah. We have a regular testing for the feed
14 water level and there's not any regular testing on the
15 temperature alarm, because they have to remove probes
16 and put them in a (inaudible). That's not done by any
17 regular system.

18 Q Which high temperature alarm would that be?

19 A (Inaudible.)

20 Q What other aspect or part of the system is
21 tested periodically?

22 A You have to change regularly the main shut
23 off valve. Once a year we have to change it, just
24 because of the safety.

25 Q Anything else that you can recall that --

1 A Not that we check so regularly.

2 Q What about the flame scanners, are they
3 periodically tested?

4 A They are -- when they stop working, we give
5 them immediately to the electronic engineer and they
6 send them ashore where they will be tested and returned
7 to the ship.

8 Q So when they stop working is when you look at
9 them. Do you test them otherwise, if they're working?

10 A Not on board. We do not have that equipment
11 on board. We have to send them ashore.

12 Q Are they ever sent ashore to be tested --

13 A Oh, yes.

14 Q -- even if they're working?

15 A Some have been working and we will still.
16 Maybe because of heat or something like that they stop
17 working, we put them aside, they are not working at the
18 moment, that's enough for us. As long as it's not
19 working, we have to put them aside.

20 Q How about the fuel oil clinoid shut off
21 valve, do you test that periodically?

22 A They are tested. You have one big shut off
23 valve for each boiler. That is changed once a year on
24 a regular basis. There is two shut off valves on each,
25 for each burner that will be tested almost twice a

1 week.

2 Q How do you test them twice a week?

3 A Open and close.

4 Q So you test them that they operate, open and
5 close?

6 A Yeah. It's done two or three times a week on
7 all the burners on all the boilers.

8 Q Do you ever test to verify that on a loss of
9 fire that the clinoid valves are closed?

10 A Can you repeat?

11 Q Yes. Have you ever done a test to verify
12 that if you lose the fire, if the flame scanner detects
13 no fire, that the burners --

14 A We do that by acetylene burner. We remove
15 the flame detector, the acetylene burner in front of it
16 to see if it's open, but the boiler is still shut off.
17 The manual valve is shut off. But to see if the valve
18 opens and closes. You are bluffing the photocell with
19 this acetylene burner to see that it opens and closes.

20 Q Do you do that once a year or how often do
21 you do that? Or just whenever?

22 A It might be done more than once a year, maybe
23 two or three times.

24 Q When was the last time you performed that
25 test on Boiler 23?

1 A If it was working, I've not done it at this
2 time, but last year I did it I know, but not this year.

3 Q You have not done it in 2003?

4 A No.

5 Q When last year do you think was the last time
6 you tested that?

7 A This was in October or something like that.

8 Q October 2002?

9 A Yes.

10 Q Which ones did you test in October 2002, do
11 you recall?

12 A That was on Boiler 22.

13 Q I'm sorry?

14 A Boiler 22. Because there is no schedule for
15 this, it's something you do only when there is an
16 opportunity.

17 Q There's no schedule to do it?

18 A No, there's no schedule to do it.

19 Q So whenever you have an opportunity to do it,
20 then --

21 A I do it just to be safe.

22 Q Sure. What about Boiler 23, when was the
23 last time you tested that?

24 A Earlier last year I think.

25 Q The early part of 2002?

1 A May, June.

2 Q May, June 2002?

3 A Yes.

4 Q Did you test all five burners or did you just
5 test one of them, the flame scanners?

6 A Normally I test number two, three, four,
7 five.

8 Q You don't normally test number one?

9 A When you have a chance to close one burner,
10 you are at the pier and burner number one is off
11 anyway.

12 Q Burner number one is off anyway?

13 A Yes.

14 Q When was the last time you tested Boiler
15 number 22 and 24 for flame scanners?

16 A The testing was done not this year on the
17 flame scanner on 22 and 24.

18 Q Do you recall if you tested it in 2002?

19 A As I told you, I was testing Boiler -- that
20 was 22 I was mentioning before.

21 Q You did say that, 22. That was October 2002.

22 A Yeah.

23 Q How about 24, do you recall testing that one?

24 A No, I am not able to recall it at the moment.

25 Q Would you have that written down somewhere in

1 a maintenance book, that you had performed the test?

2 A No. It would be off the record, because it's
3 not supposed to be done that way, but I do it anyway to
4 be safe.

5 Q Does the boiler technical manual say anything
6 about --

7 A No.

8 Q -- doing that test?

9 A No. It doesn't say anything.

10 Q Does your ISM system have any --

11 A No, the ISM system is not (inaudible).

12 Q Okay. How about the maintenance of the
13 burners themselves, the barrels or the atomizing
14 assembly or I don't know, what would you call that, the
15 barrel, the burner?

16 A They are cleaned and checked two or three
17 times a week.

18 Q Who would do that cleaning and checking?

19 A The stoker.

20 Q On which watch or would all the watches do
21 it?

22 A From 4:00 to 8:00.

23 Q The 4:00 to 8:00 stoker would normally do
24 that?

25 A Yes, 4:00 to 8:00 is the standing order. The

1 stoker on 4:00 to 8:00 is to clean the burners. The
2 stoker on 8:00 to 12:00 will change the burners, the
3 stoker on 4:00 to 8:00 is cleaning.

4 Q You said he cleans them and checks them.
5 What sort of checks does he do to the burners?

6 A Checking the nostrils on the burner tip is
7 done on a regular basis. He opens everything, removes
8 everything and puts it back again, then he's putting on
9 steam to see if it's leaking.

10 Q Do you ever do any hydro testing of the
11 burner, the barrel assembly?

12 A No.

13 MR. ROTH-ROFFY: Okay. I'm going to go ahead
14 and pass to the next interviewer. However, do you need
15 to take a break for a few minutes?

16 UNKNOWN: I'd like to take a break.

17 MR. ROTH-ROFFY: Okay. The time is now about
18 10 minutes after 12:00, we'll go ahead and take a
19 break.

20 12:10 p.m.

21 (Whereupon, a recess was taken.)

22 2:00

23 MR. ROTH-ROFFY: The time is now 14:00 and it
24 is still the 27th of May. We are resuming our
25 interview with the second engineer, Mr. Finn

1 Nicolaisen.

2 I had completed my round of questions and I
3 was going to pass over to Brian.

4 MR. FARKAS: This is Dan Farkas, representing
5 Mr. Finn. He wanted to change one of his answers. I
6 guess he went back on the ship and found some things
7 with regard to the hydro pressure question.

8 MR. ROTH-ROFFY: Go ahead, sir, if you want
9 to.

10 THE WITNESS: The last testing was in the
11 second week of January 2003.

12 MR. ROTH-ROFFY: January 2003?

13 THE WITNESS: Yes.

14 MR. ROTH-ROFFY: Hydro test of the boiler
15 tubes?

16 THE WITNESS: Yes.

17 MR. ROTH-ROFFY: On the pressure vessel?

18 THE WITNESS: Yes.

19 MR. ROTH-ROFFY: Thank you. Do you have any
20 other information that you were able to define from
21 your --

22 THE WITNESS: No, not at the moment.

23 MR. CURTIS: This is Brian Curtis.

24 EXAMINATION

25 BY MR. CURTIS:

1 Q Regarding the cutting in and cutting out of
2 burners, letting off and securing of burners, who would
3 have done that?

4 A The stoker on duty.

5 Q And is he directed each time when to cut in
6 and out the burner or does he do that on his own?

7 A No. When we are finished with the engine the
8 normal course really is to disconnect one burner and
9 disengage the (inaudible) gear again and to start up
10 the burner again.

11 Q So when the stoker secures that burner, he
12 does that on his own without asking anybody else?

13 A Yes. He don't have to ask anybody, but there
14 is always an engineer on duty when he is doing it, so
15 there would be an engineer in the boiler room.

16 Q When he does secure the burner, I understand
17 there's a manual valve in the line with the clinoids?

18 A Yes. Two clinoids that is automatically shut
19 off when he pushes the off button.

20 Q When he does secure a burner, is that manual
21 valve usually left open so he can relight the burner?

22 A No, no, no. He's removing the whole body of
23 the burner manually. He opens the things that is
24 keeping the burner in place, unlock it and remove the
25 burner, blow it with steam and make it ready for use

1 next time.

2 Q So when you come into port and he secures
3 that burner, at that time he pulls the burner out of
4 the register?

5 A Yes.

6 Q To light the burner off you use the
7 combustion control, push the button, is that correct?

8 A Yes.

9 Q Do you ever have any problems with the auto
10 igniters?

11 A No.

12 Q Do you recall the last time you had a problem
13 with an auto igniter, that it wouldn't ignite a burner?

14 A Too long time ago, I can't remember that.

15 Q So every time you light off, you don't have a
16 problem with the auto igniters?

17 A Because you don't know if the igniter is
18 working or not because there is already flames inside
19 and it really ignites automatically by the auto
20 burners, so you don't know. You can see the red light
21 on the end of it if it's working or not, but if it's
22 working or not you can't tell, but you have the red
23 light indicating there is polar on it, but if it's
24 really sparking in the end of it, you don't know, but
25 it ignites.

1 Q And how often did you say you clean the
2 burners, that the tips are cleaned?

3 A Two or three times a week.

4 Q Is that frequency due to that you've
5 experienced a normal build up of carbon at that point
6 or just that's your procedure?

7 A That's the procedure.

8 Q At that point do you usually notice a lot of
9 carbon on the tips, plugging of the nozzles?

10 A Most of the time they are pretty clean.

11 Q Does the vessel use an inventory maintenance
12 computer program to --

13 A Yes, we have AMOS.

14 Q You use AMOS?

15 A Yes.

16 Q Is that for inventory as well as maintenance
17 records? Both?

18 A The AMOS is also for spare parts on board and
19 maintenance and everything.

20 Q As far as the inventory, do you use that
21 regularly so it is accurate as far as where your parts
22 are located, inventories?

23 A Every time we remove a new part from the
24 store you have to give a label to the storekeeper so he
25 can feed into this computer and order immediately if

1 the stock is low.

2 Q As far as a maintenance side of AMOS, do you
3 use that as your maintenance program?

4 A Yes, we do.

5 Q So any maintenance performed on the boilers
6 would be in the AMOS program?

7 A Yes, it will be.

8 Q Who would enter the data into the AMOS
9 system? Would that be the engineers or the stokers or
10 who is responsible for doing the actual data entry?

11 A That's the first engineer.

12 Q The first engineer?

13 A The first engineer.

14 Q How is the information of the work performed
15 passed on eventually to the first engineer? Do you
16 have a meeting once a day or how is it --

17 A No, but when the work is done we have to fill
18 out a paper. The computer will give out the copy of
19 (inaudible) to be checked. Then the first engineer
20 give us the paper, we do the work and return the paper
21 and sign the date it's done.

22 Q Then the first enters it in?

23 A Yes.

24 Q The flame scanners, they do not have a work
25 order in that AMOS system to --

1 A Not that I know, no.

2 Q As it in the AMOS system, a work order to
3 clean the burners every so many days? Was that a work
4 order in there or that was just a --

5 A No. I have never seen a work order on that.

6 Q Did only the first enter the data or did the
7 seconds as well enter their own AMOS data into AMOS?
8 If the second did his own work, would he sometimes
9 enter data?

10 A No.

11 Q So only the first?

12 A Only the first engineer.

13 Q Would the first assign work out of the AMOS
14 system? In other words, would he give you a printout
15 once a week, once a day and assign it to different
16 individuals or how was the work assigned from the
17 system?

18 A He gave the work order out weekly. He's
19 checking the computer and the computer prints out the
20 work orders and he goes to the control room and puts it
21 in different lockers belonging to the engineer in
22 charge of the system.

23 Q If for instance an item comes up that was due
24 this week and it didn't get done so the first didn't
25 put the data in the computer, does it come up again

1 next week?

2 A Then it will return again with the sign over
3 this.

4 MR. CURTIS: That's all I have right now.
5 Thank you.

6 EXAMINATION

7 BY MR. PAILLACAR:

8 Q Mr. Nicolaisen, my name is Carlos Paillacar,
9 I'm from the Coast Guard in Miami. In one of your
10 previous statements you stated that you tested the
11 clinoid valve with an acetylene torch. Was the
12 acetylene stored in that compartment?

13 A Yes.

14 Q It was stored in that compartment?

15 A Yes.

16 Q In what area?

17 A Not the (inaudible), only a pipe from the
18 center.

19 Q A pipe from the center?

20 A Yes. The center of it is on (inaudible).
21 That is the main center for the oxygen and acetylene.

22 Q And there is piping that goes --

23 A There is piping around in different places in
24 the engine room with hoses and everything.

25 Q Okay. And to your knowledge, sir, when was

1 the last time that piping was inspected?

2 A I have no idea.

3 Q Where would that piping come out in the
4 boiler room?

5 A You can't find it now because the wall on the
6 boiler has been blown, so that pipe might have been
7 broken off.

8 Q So it would be right there were the --

9 A Yes. Behind Boiler 23.

10 Q -- right behind Boiler 23?

11 A Yes.

12 Q That's where the piping would have been?

13 A Yes.

14 MR. PAILLACAR: That's all from me.

15 MR. OLSEN: Ken Olsen.

16 EXAMINATION

17 BY MR. OLSEN:

18 Q I'm going to try not to be repetitive. I've
19 got a lot of questions. While we were just on it, you
20 said they test the clinoids out with the oxygen and
21 acetylene. Could you explain and expand on that, what
22 you meant by that and how you do it?

23 A You close the manual fuel valve, then you
24 release the photocell, take it out, then you ignite the
25 torch and put it in front of the photocell here and the

1 flame lights, then you tell the stoker to stop it under
2 the burner, then you see if it's going off, if the
3 valves are opening.

4 Nothing will happen, because the manual fuel
5 valve is closed, so nothing will happen, but you see if
6 the hermetic valve is working.

7 Q And you use the torch to trick the --

8 A Yes. Because a flashlight is not strong
9 enough.

10 Q You also mentioned -- when we talked about
11 this earlier, you mentioned another test where you
12 closed both valves, the stop valves around the clinoid
13 valve. What was that about? I wasn't too clear on
14 that. Or is this the only test that you really do with
15 the --

16 A That's the only test.

17 Q That's the only test?

18 A Yes.

19 Q What is the operating pressure of the
20 boiler's steam?

21 A The steam drum pressure is about 62 kilos and
22 the (inaudible) is more or less 3 kilos lower.

23 Q What is the super heat temperature?

24 A Normally the super heat temperature is around
25 470 degrees Celsius.

1 Q You generally work an eight-hour day; is that
2 correct?

3 A Yes.

4 Q And when you do work on the boilers, is that
5 during your period on watch or do you come down for
6 overtime?

7 A Extra overtime.

8 Q Excuse me?

9 A Extra overtime.

10 Q About how much overtime per day do you work?
11 Are you required by contract to put in 12 or how does
12 that work?

13 A By contract, I have to do ten.

14 Q Ten?

15 A Yes. Ten a day.

16 Q So you probably work two hours extra a day
17 on --

18 A Yes. Not every day. That's a lie. Because
19 if there is nothing to do on the boiler, it's not
20 necessary for me to go down. But then on the other
21 hand, other days I might be on five or six over.

22 Q Yes. When you go beyond a ten-hour day, do
23 you keep records, like overtime records?

24 A We have to fill out a STW sheet.

25 Q Work hours?

1 A Yes, work hours total.

2 Q But do you keep your own notebook for work
3 that you do, to keep track?

4 A No.

5 Q Those records aren't available?

6 A No.

7 Q With respect to the stoker in the machinery
8 space, how is he trained? Have you ever seen the
9 stoker trained by someone when he first comes on board?
10 And not only that, what kind of material does he have
11 to understand firing the boiler?

12 A The one that was on duty when the accident
13 happened, he had not been a stoker that fall, so he was
14 taught by one that is deceased now, Bong (phonetic).
15 Mr. Bong had been on board since '87 as a stoker.

16 Q The one that was deceased was taught by Bong.
17 And how long had the guy is deceased, how long had he
18 been on board the vessel?

19 A The one that is deceased was Mr. Bong.

20 Q Oh, it was Mr. Bong.

21 A His name is Vonenjala (phonetic). We only
22 used to call him Bong, but his last name is Vonenjala
23 and he had been on board for 17 years and he --

24 Q You're talking about your oiler on your
25 watch? I mean your stoker on your watch?

1 A The stoker on my watch is Erik Leanillo.

2 Q So is it correct then that there is no other
3 -- do they have a manual that they could look at or any
4 other guidance in terms of knowing how to fire the
5 boiler?

6 A (No response.)

7 Q Is there any other information that a stoker
8 can use to --

9 A I don't think so.

10 Q So it's all on-the-job training?

11 A Yes. On the sea training.

12 Q Have you ever witnessed one stoker training
13 another?

14 A Yes, I have.

15 Q You've seen that?

16 A Yes.

17 Q Have you ever seen or come across in your
18 experience on board this ship methods to hold the
19 clinoid valve open, either the main or the auxiliary
20 burners, whether electrically or with a block or wood?
21 Have you ever seen that done?

22 A No.

23 Q No?

24 A No.

25 Q Have you ever had the force draft fans trip

1 off while steaming? Have they ever knocked off
2 electrically or for whatever reasons?

3 A Yes, because of blackouts.

4 Q Okay. But they never were the cause of the
5 blackout?

6 A No. The reason for the blackout the last
7 time that was before Christmas, that was the chief
8 electrician, he was pulling the wrong switch. When
9 that happened, the fuel and everything was shut down
10 immediately.

11 Q Yes. I'm going to go through my list rather
12 than jump around here. Is there any other times when
13 you're either burning two burners or three burners or
14 is there always four and one?

15 A No, sometimes it's only three.

16 Q Sometimes it's only three?

17 A Yes. It all depends on the load and the
18 pressure of the (inaudible).

19 Q What is the biggest load that you have in
20 port? Where is that steam being used, besides heating
21 the fuel to burn?

22 A It's used for -- at the moment we have five
23 generators that are running (inaudible).

24 Q Do you have any idea of the consumption of
25 feed water for the boilers, how many tons per day you

1 were using in distilled water?

2 A Normal consumption is 80 to 120.

3 Q From 80 to 120?

4 A Yes.

5 Q And that could be throughout the plant
6 though, right?

7 A Yes, the whole plant.

8 Q Does the ship have a chemical service, like
9 Drew Amoroid (phonetic) come down and test the boilers?

10 A Yes. They are once a month or more.

11 Q Once a month. Who keeps those records?

12 A That is one named Trond Kristensen.

13 Q You mentioned that Bjoern Skarstein and Rolf
14 Sorensen, I'm sorry if I've mispronounced those names,
15 were the electronics?

16 A Yes.

17 Q Are they also marine engineers like you?

18 A No, they are only electronic engineers.

19 Q Okay. So we don't know if they understand
20 boilers or not. They may understand electronics, but
21 do they understand a steam plant and the safeties
22 involved? What's your opinion on that?

23 A They need to answer on that, because I never
24 discussed the boiler with them, I only tell them there
25 is something wrong with the automatic and repair it,

1 but the boiler system I can't answer.

2 Q When the Siemens representative comes on
3 board, obviously the chief engineer would call the
4 company to request him, but have you ever given input
5 to when to request the Siemens engineer on board?

6 A No.

7 Q How does that happen, do you know? How does
8 the chief find out about the problems?

9 A That will be by the first engineer. The
10 first engineer will tell him.

11 MR. CMAR: Just so we're clear for the
12 record, Siemens is S-i-e-m-a-n-s.

13 THE WITNESS: Yes, I referred to Siemens.

14 BY MR. OLSEN:

15 Q Is it correct to say that the photocells are
16 not regularly cleaned?

17 A They are regularly cleaned.

18 Q They are?

19 A Yes. They are cleaned several times every
20 day.

21 Q They pull them off and --

22 A Yes. They pull them out, they use a rag to
23 clean them and put them back again.

24 Q Okay.

25 A Yes.

1 Q When they're pulled off they only effect the
2 burner valve or is it ever possible that it could
3 effect the main valve?

4 A Only the -- if you remove the photocell on
5 burner number four it's only effecting burner four and
6 not the rest of them.

7 Q Okay. What kind of actions could cause the
8 main valve to close?

9 A Loss of combustion air, a low fuel pressure.

10 Q Low fuel pressure?

11 A Yes. If it is too low it will close. High
12 temperature, high pressure will shut down the boiler.

13 Q Is your fuel pump electric?

14 A Yes, electric.

15 Q Do you recall ever having to have the
16 electronics persons look at your air pressure sensors?
17 Has that ever occurred before?

18 A No. Not an air pressure sensor.

19 Q What type of fuel is burned in the boiler?

20 A (Inaudible).

21 Q Have you ever seen diesel burned in the
22 boilers?

23 A Every dry dock you'll have to light up with
24 diesel.

25 Q Cold start?

1 A Yes.

2 Q But not recently?

3 A No. Not since -- last time was in 2001, in
4 October. No, November in 1991, fueling at dry dock.

5 Q Have you had times where the fuel quality is
6 poor and required more stoking or punching carbon?

7 A No.

8 Q No? How about the burner refractory was
9 fixed, did you have carbon problems?

10 A Not really. There will always be some
11 residue inside a boiler, but not inappropriate.

12 Q I mean building up on the burner throat.

13 A If there are any build up on the burner, the
14 stoker is going every watch and looking inside a side
15 glass. If he sees anything inside there, he will
16 remove it.

17 Q But you don't recall them reporting extra --

18 A No.

19 Q An extra requirement to do that?

20 A No.

21 Q How about --

22 A Only Boiler 23 when some part of the boiler
23 was falling down we have some problem with burner
24 number one, the lower one. Then we shut off -- when we
25 had the opportunity, we was shutting down the boiler

1 and went inside to check what is wrong.

2 Q With respect to the atomizing steam, have you
3 had problems with the regulator for the steam
4 atomization?

5 A No.

6 Q What is that pressure?

7 A It's 11 kilo.

8 Q Eleven kilo?

9 A Yes.

10 Q And there's been no problems with the
11 regulator?

12 A No.

13 Q You mentioned that the burners can be ignited
14 by push button or the clinoid valve opened and the
15 process started by push button?

16 A Yes.

17 Q Where were those push buttons located?

18 A In the control panel between the four
19 boilers, between the boilers.

20 Q And there's one for each burner?

21 A Yes, one for each burner.

22 Q Is there a master button to kill the boiler?

23 A Yes. There is.

24 Q There is?

25 A Yes.

1 Q Is that protected by any safety device, like
2 a plastic cover or anything like that or can that be
3 hit accidentally?

4 A It can be hit accidentally.

5 Q Have you ever seen maintenance done on the
6 igniters for each burner? Mainly the number 23
7 boilers?

8 A I've never seen it, but I've been giving some
9 of the igniters to the electronics and they take them
10 up to the work shop and are returning them repaired.

11 Q Granted, the flame doesn't go out too often,
12 most of the time you'll have a flame, but have you ever
13 seen them use a torch recently to light off the boiler?

14 A No. No, only igniter. When we normally
15 start lighting a boiler when it's shut off and we start
16 to light it, we use burner number three and for the
17 last year I have not seen any problem. When it goes in
18 for the first time it ignites and everything is normal.

19 Q Tell us about the fans. Are both fans always
20 running or only at high load?

21 A It depends on the load. When the fuel flow
22 is going above 3.3 tons an hour we have to run two
23 fans, upper and lower. But when we stay at port, we
24 only run one.

25 Q Does that air pressure sensor that's tied --

1 if you know, tied into the automation system, is that
2 coming from a fan outlet or coming from the casing
3 somewhere?

4 A The signal is coming from the casing, going
5 up to the control room, to the master computer up
6 there, the controller for the boiler, then back down.

7 Q Okay. So you could shut off either fan or
8 turn on either fan, as long as there's that signal?

9 A Yes, you can do it.

10 Q When you go on vacation, do you keep change
11 over notes?

12 A Yes, we do.

13 Q Are they detailed?

14 A Yes.

15 Q Do the other engineers and the chief
16 engineers keep notes, do you know?

17 A Yes. I believe they do the same.

18 Q Have you ever had the occasion where maybe
19 the stoker did hit the wrong push button and secure the
20 boiler accidentally? Has that ever happened that you
21 can recall?

22 A Not the stoker.

23 Q Not the stoker, an engineer maybe?

24 A Correct.

25 Q I know you said that you weren't sure, but

1 I'm going to ask again, because I'm not sure of the
2 answer. The stoker, when he comes on board there is no
3 written material for him or guidance on how to do his
4 job, procedures maybe in the SMS?

5 A No. As far as I know, it's only on sea
6 teaching.

7 Q Do you know if in the SMS manual that there
8 are any procedures for lighting off the boilers? Does
9 it go into that detail?

10 A No. The stoker will have to go through that
11 details.

12 Q But you're not aware in the SMS manuals that
13 that could be there?

14 A No. But on each side on the control panel in
15 the boiler room there is the procedures sign on there.

16 Q With FTCW there's the requirement that the
17 crews receive an orientation to their jobs.

18 A Yes.

19 Q And records are kept. Who would be the
20 person that would acknowledge that the stoker or any
21 stoker received the orientation that he was supposed
22 to?

23 A I don't know who that will be. It can be the
24 chief engineer or the first engineer. I'm not sure
25 which one of them.

1 Q Do you recall -- since Safety Management
2 Systems have been implemented, do you recall any major
3 non-conformities, problems that might have been
4 reported through the Safety Management System regarding
5 the boilers?

6 A (No response.)

7 MR. FARKAS: Verbally.

8 THE WITNESS: What?

9 MR. FARKAS: Answer verbally. You shook your
10 head.

11 THE WITNESS: No.

12 BY MR. OLSEN:

13 Q Have you had any tubes blow out that required
14 to be re-tubed or plugged in your recent past?

15 MR. FARKAS: Are you referring to number 23
16 or --

17 THE WITNESS: To boiler --

18 MR. FARKAS: Hold on. Are you talking --

19 MR. OLSEN: Both. Mainly number 23.

20 BY MR. OLSEN:

21 Q But have you had any super heater tubes go
22 out or bad hand holds that blow out or things like
23 that?

24 A On Boiler 23 there was a super heater tube in
25 January 2003 that was plugged. The boiler was pressure

1 tested and back on line.

2 Q That was the reason for the hydro?

3 A Yes. And on Boiler 21 we did hydro testing
4 on Saturday.

5 Q On Saturday?

6 A Yes. Because there was one of the generating
7 tubes besides was leak and we have to plug it. We was
8 plugging it and pressure test, hydro testing and no
9 more leaking.

10 Q Do the engineers receive any type of training
11 in terms of using the combustion control system or is
12 it on-the-job?

13 A All the engineers that arrive on board the
14 ship, we give them a booklet with all the instructions
15 needed for the whole engine room, controls and
16 everything.

17 Q Have you heard of any problems with the crew
18 having either drug or alcohol problems while on watch
19 or even off watch? Is there any of that ever going on
20 that you're aware of?

21 A No. Not that I know.

22 Q The stokers are filipino?

23 A Yes, they are filipino.

24 Q How is their english?

25 A Not too bad.

1 Q Not too bad?

2 A No. I can understand them quite easy.

3 Q Have you ever seen occasions where their
4 ability to read something has suffered or is noticed?
5 How do we know how well they can comprehend english
6 reading? Has that ever occurred to you?

7 A The day they are signing on they receive a
8 list with 60 different questions. They have to read
9 it. There are three different answers. If you are not
10 able to read english and understand it, you will fail
11 the test. If you fail the test, they give you one more
12 chance to do it, if you fail that, you go home. Then I
13 understand they do not understand english.

14 Q Are you aware if any of the stokers or the
15 stoker that was on watch at the time of the casualty,
16 was he under any extra stress or was there any
17 indication that something might have been bothering
18 him?

19 A No.

20 Q He was normal?

21 A Nothing. He was normal. Acting just like
22 another human.

23 Q Just to clarify, I think you told me earlier
24 the other engineers that are working throughout the
25 engine room during a watch, they're not always in the

1 boiler room; is that correct?

2 A They're --

3 Q I guess the question is this: is there ever
4 someone particularly assigned to that boiler room?

5 A Only during standby. Then there has to be
6 one engineer. But the rest of the day when the ship is
7 out at the open seas, then the engineer is moving
8 around in the engine room.

9 Q At the time of the casualty, did you have
10 finish with engines? Was that run down yet?

11 A Yes. It was finish with engine before 6:00.

12 Q Before 6:00?

13 A Yes.

14 Q What are your insights in terms of what could
15 have happened and caused this casualty? Any ideas?

16 A No. No idea. I never seen anything like
17 this before.

18 Q In your years on the ship, have you ever had
19 a flare back?

20 A Yes, but many years ago.

21 Q Did it result in damage?

22 A No.

23 Q No?

24 A The stoker at that time, he was a little
25 black in his face, but that's all. No damage, only

1 soot.

2 Q Is that the biggest thing you've seen with
3 respect -- at sea, is the engine room under a vacuum or
4 is it under pressure?

5 A Pressure.

6 Q It's pressure?

7 A Yes.

8 Q With both fans running?

9 A If both fans are running, the boiler room I
10 think will be in a vacuum, a little bit under pressure.

11 Q In port, how is it in port? Is it under
12 vacuum or pressure in port conditions?

13 A In port condition it will be -- the air will
14 blow from the boiler room into the next room, but at
15 sea it blows from the next room into the boiler room.

16 Q Have you ever had times where the boiler
17 panted? Have you seen that occur?

18 A No.

19 Q I'm not being smart with this, but I want to
20 get it on the record. Have you been instructed in any
21 special way on how to answer us or what not to share
22 with us?

23 A Only thing them told me was to tell the truth
24 and nothing but the truth.

25 MR. OLSEN: Good. Thank you.

1 Q But he had been on board for quite some time?

2 A Yes.

3 Q He wasn't new?

4 A No, he wasn't new.

5 Q Were the stokers allowed to light off the
6 burners or did the engineers do that at the push
7 button?

8 A Normally when I was down I do that and then
9 he remove it, the burner, and close the fuel valve and
10 remove the burner and clean it. Blow it and clean it.

11 Q So it is possible that the same arrangement
12 would be with the other engineer on that?

13 A I believe so.

14 Q The engineer would be the one who shuts the
15 burner off electrically?

16 A Yes.

17 Q And the fireman would remove it?

18 A The stoker.

19 Q The stoker, I'm sorry. I guess you can't
20 tell us --

21 MR. OLSEN: That's it. Thank you very much.

22 EXAMINATION

23 BY MR. BUTCHKO:

24 Q My name is John Butchko, Miami Dade
25 Homicide. I have a few questions to ask you. One is

1 about Bong Condido Vansuelz. Do you know if he was on
2 duty at the time of the accident?

3 A No, he was in his bed.

4 Q He was in his bed. Do you know what cabin he
5 was in by any chance?

6 A No, I do not recall the number.

7 Q How about what floor?

8 A The C Deck.

9 Q He was on the C Deck?

10 A Yes.

11 Q There was another one, a wounded gentleman,
12 that was in his cabin also and that's Vilanoiva
13 (phonetic).

14 A Vinny Vilanoiva.

15 Q Yes. Were they in the same cabin or were
16 they in adjoining cabins?

17 A No, different cabins, but close to each
18 other.

19 Q Side-by-side?

20 A Side-by-side, yes.

21 Q Another thing I want to go over is when we
22 first started talking to you we started about --
23 actually talked to you, you said you were asleep and
24 then you went downstairs after the explosion.

25 A Right.

1 Q But we didn't ask you about what you heard or
2 felt at the time of the explosion. Did you hear the
3 explosion?

4 A No.

5 Q How did you wind up waking up?

6 A I believe the explosion woke me up, but I
7 didn't hear it.

8 Q You think maybe something woke you up but you
9 weren't sure what it was?

10 A Yes. Something was waking me up, but I am
11 not able to tell what.

12 Q Was that the time that you were supposed to
13 wake up?

14 A No, it was before.

15 Q You said you're not sure what exactly woke
16 you up, you think now it might be the explosion. What
17 caused you to get your gear and to dress and to head
18 down to the engine room if you weren't sure what woke
19 you up? Did somebody call you?

20 A Because -- no, nobody had to call me. As
21 long as the light is gone in your cabin and there is no
22 ventilation fan running, you know there is something
23 wrong.

24 Q I see. So the blackout was already occurring
25 so you knew there was a problem.

1 A I knew there was a problem so I had to go
2 down.

3 Q When you went downstairs, did you assist in
4 the rescue operation at all?

5 A No.

6 Q Did you see where any of the victims, either
7 the deceased victims or the most critically victims
8 were, in what area?

9 A I didn't see anybody.

10 Q What area did you go into when you went down
11 the stairs?

12 A I went from Olympic Deck, the staircase down
13 to the forward engine room and from the forward engine
14 room to forward stabilizer room, then I had to stop
15 because the watertight door was closed and I was told
16 that there had been an explosion inside here and I had
17 to wait outside and I went to the control room.

18 Q I didn't understand the room you went to
19 after the forward engine room. The forward engine room
20 to where?

21 A The forward stabilizer room.

22 Q Stabilizer room?

23 A Yes.

24 Q That's when you say the fire doors closed?

25 A Yes, the watertight door was closed, so I had

1 to wait.

2 Q Do all four of these boilers in that area, do
3 they all operate off of the same system? In other
4 words, if there was pressure in 23, I know one of them
5 was shut down, but the ones that were working, if there
6 was this explosion in 23, could that happen in 22 or
7 24? Are they all on that same system or are they
8 isolated from each other?

9 A They are connected via super heater steam
10 line and de-super heater steam like. That's the only
11 thing that is connected.

12 Q The super heater steam line and the diesel
13 steam line?

14 A De-super heater and the super heater.

15 Q Diesel heater, is that what you're saying?

16 A De-super heater.

17 Q The super heater?

18 MR. FARKAS: I'm sorry, Detective, maybe I
19 can help. It's d-e super heater. Desuper header and
20 super heater.

21 MR. BUTCHKO: Okay. I'm sorry.

22 BY MR. BUTCHKO:

23 Q So if there was a problem in 23 that caused
24 this, it only could have happened in 23?

25 A Yes.

1 Q You said at some point when you went out of
2 your room you were told by somebody that there was an
3 explosion. Do you recall who that person was?

4 A No. I'm not able to recall it.

5 Q It was a crew member?

6 A Yes, it was a crew member down in the forward
7 engine room.

8 Q You also mentioned that there were people
9 from the fire department there when you arrived on the
10 scene. Was that the outside fire department or ship
11 fire department?

12 A It was from Miami.

13 Q Miami, an outside agency.

14 A Yes.

15 Q There was a mention about the tiles or I
16 guess the ceramic tiles inside of the boiler when your
17 people were doing the cleaning of Boiler 23. You
18 mentioned that most of the -- you used the word, I
19 think it was "blue ram"?

20 A Blue ram, yes.

21 Q And a lot of that was used in one section on
22 the front wall of the burners.

23 A Yes.

24 Q That blue ram, does that have to do with the
25 tiles themselves, replacing tiles? Does that have

1 anything to do with the tiles?

2 UNKNOWN: If I could maybe offer some
3 information, but it should come from the witness.

4 BY MR. BUTCHKO:

5 Q What I'm asking, there are tiles there. Were
6 the tiles damaged when it was cleaned?

7 MR. ROTH-ROFFY: Okay. Let's go off the
8 record here, they want to clarify this.

9 (Off the record discussion.)

10 MR. ROTH-ROFFY: Okay. We clarified that
11 regarding the tiles. Go ahead and restate your
12 question.

13 BY MR. BUTCHKO:

14 Q With reference to the blue ram or the damage
15 inside of -- the normal damage that was inside of
16 Boiler 23 at the time that it was being cleaned, which
17 I believe was like a week and a half ago, was there an
18 unusual amount of damage to that area than what you
19 normally see or was it consistent with every 3,000
20 tests you do or cleanings you do?

21 A It was more or less normal.

22 Q Normal?

23 A Yes.

24 Q And during that cleaning process, was
25 everything you saw consistent with the normal wear and

1 tear of that burner after 3,000 miles, I guess it is,
2 or hours?

3 A Yes. It was cleaner inside than I expected.
4 It was not that dirty as normal. Sometimes when you
5 open the boiler it's very dirty inside. This time it
6 was cleaner.

7 Q Were there any warning alarms in the past?
8 Had there been any warning alarms coming from Boiler 23
9 in the past that you recall?

10 A No.

11 Q And if there were, that would be checked; is
12 that correct?

13 A Yes.

14 Q And that would be recorded?

15 A Yes. It would be recorded and checked.

16 Q I only have one or two more questions here.
17 We were talking about the burner tips being cleaned.
18 Who is the one who cleans those burner tips?

19 A The stoker on 4:00 to 8:00 duty.

20 Q It's always done on the 4:00 to 8:00?

21 A Yes.

22 Q There were some questions about training, you
23 referred to him as Mr. Bong, who is Venezuela, training
24 another one of the stokers. Are there records kept,
25 training records kept? Is there training periods? For

1 example, the police department, every year we have to
2 go through a certain amount of training and it's
3 recorded. Is that done in this type of job also?

4 In other words, do they keep training records
5 on each one of the employees?

6 A I'm not the correct one to answer on that,
7 because I'm only a second engineer. The training and
8 training system is the chief engineer. I don't know.

9 Q That's fine. And the same question I was
10 going to ask about, because one of the questions asked
11 by Mr. Olsen was about drug, alcohol problems employees
12 may have had. If there was a problem like that, is
13 that something that would be kept in their personnel
14 files? Would that be documented?

15 A If anybody had been caught misusing alcohol
16 or drugs, it will be in the file someplace.

17 Q And you mentioned about tests that they
18 didn't speak english or did speak english. I'm not
19 familiar with that. What test is that you're talking
20 about?

21 A It's 60 different questions. What is the
22 most important thing to do when you arrive on a new
23 ship, answer number one --

24 Q But when is that test given? Is that test
25 given at the time you get hired?

1 A Yes.

2 Q So you have to take that test before you even
3 get trained to do any of these jobs?

4 A If you are not able to understand english,
5 you might sign the upper one, find the crew boss.
6 That's the most important thing to do. It's a way to
7 check if people understand what they are reading.

8 Q Okay. But that's done before they're even
9 put in a job for training?

10 A Yes. Before they start working.

11 MR. BUTCHKO: I have no further questions.
12 Thank you.

13 MR. CMAR: This is Steve Cmar, Norwegian
14 Cruise Line.

15 EXAMINATION

16 BY MR. CMAR:

17 Q I just want you to clarify a few things.
18 When the burners are removed, is the main valve closed?

19 A Yes.

20 Q The manual valve?

21 A Always.

22 Q On burner light off, how many people are
23 involved in the light off of the burners?

24 A No more than two. The engineer and the
25 stoker on duty. The engineer will stop the burner and

1 the stoker close it and remove it.

2 Q We talked about the oxygen and acetylene ship
3 before. Where are the bottles, the main bottles?

4 A The main bottles, the main central is on
5 Viking Deck forward.

6 Q Are those lines charged all the time?

7 A No.

8 Q Can you tell me --

9 A At 9:00, 10:00 in the evening the fire
10 department is supposed to go and shut off the main
11 valves, then open the next morning.

12 Q The next morning when?

13 A At 8:00.

14 Q You're familiar with the Safety Environmental
15 Management System, correct?

16 A Yes.

17 Q And you're familiar with familiarization when
18 somebody comes on board?

19 A Yes.

20 Q I guess the question is you see the
21 familiarization being conducted when people come on
22 board or are you --

23 A All the engineers I know have to go through
24 the test and fill out the sheets with the answers, yes
25 or no.

1 MR. CMAR: Thank you. That's all.

2 FURTHER EXAMINATION

3 BY MR. ROTH-ROFFY:

4 Q Since you've been on board the SS Norway, the
5 size of the engineering department crew, has that
6 changed over the years?

7 A It's been more or less the same, going from
8 83 to 87.

9 Q So since -- I'm sorry, when did you start
10 sailing on the Norway?

11 A In 1989.

12 Q Since 1989 the manning level --

13 A More or less stayed the same.

14 Q And you said that was about how many again?
15 I'm sorry.

16 A Going from 83 to 87.

17 Q What about the number of personnel on watch
18 in the engineering spaces, has that changed since 1989?

19 A Most of the time it has been six people on
20 each duty. If there are extra engineers on board, he
21 will be placed on one of the duties, so sometimes it's
22 seven.

23 Q Has that number of people on watch been
24 constant since you've been on board or has that
25 changed?

1 A It's been constant since I started.

2 Q Do you happen to have the turn over notes
3 that you received from the engineer that you relieved
4 14 weeks ago? Have you kept that?

5 A No.

6 Q Do you have any of the turn over notes that
7 you might have given to your relief?

8 A But I believe -- when I arrived, the other
9 guy was still on board. Both Mr. Nielsen and me was on
10 board for three weeks, so the chief engineer didn't see
11 the necessity for a hand over, because I already have
12 been on board three weeks, I was knowing what was going
13 on.

14 Q I see. Do you normally give the notes to the
15 chief engineer?

16 A Yes.

17 Q Do you know if the chief engineer keeps those
18 notes?

19 A I believe he does.

20 Q You mentioned last Christmas that you had a
21 black out caused by one of the electricians pulling a
22 wrong switch?

23 A Yes, I did.

24 Q Do you recall the name of that person and
25 what switch was pulled?

1 A I don't know which switch.

2 Q Do you recall the person?

3 A I was there on duty in the engine control
4 room and suddenly everything went black.

5 Q Were you in port or at sea?

6 A It was in port.

7 Q Do you recall the electrician's name?

8 A (Inaudible), chief engineer.

9 Q I'm sorry, I may have missed it. The name of
10 the company that provides chemicals and tests chemicals
11 for the boilers?

12 A Drew Ashland.

13 UNKNOWN: Drew Ashland.

14 BY UNKNOWN:

15 Q Do you know how frequently he tests the water
16 on the boilers?

17 A I believe he is on board once a month.

18 Q And do you know how frequently the second
19 engineer tests the boiler water?

20 A It's supposed to be tested twice a day.

21 Q And also you mentioned that there was a
22 problem with burner number one and you had to shut the
23 boiler down to fix it, to pull it.

24 A That was Boiler 23.

25 Q Boiler 23. Could you describe that a little

1 bit more, when that was and what happened with that?

2 A It was in the second week of April.

3 Q And what was the problem?

4 A There was something blocking the flame.
5 Inside the furnace there was something blocking the
6 flame from the burner, so we suspected it was something
7 had been falling down, so we closed down the boiler and
8 open and went inside.

9 Q And what did you find when you went inside?

10 A A lot of blue ram had been falling down and
11 was in the front of the burner.

12 Q And that's when you decided that you needed
13 to do some repairs to the blue ram?

14 A Yes. We decided to do the cleaning at the
15 same time, because the boiler was off line anyway and
16 we could do cleaning at the same time.

17 Q How many hours were on the boiler at that
18 time? Was it due for a cleaning then?

19 A No, no, no. It was far from it.

20 Q About how far from it?

21 A More than a thousand hours.

22 Q You mentioned that the first engineer was
23 responsible for taking care of the AMOS maintenance
24 system?

25 A Yes.

1 Q Which first engineer does that?

2 A The first engineer that is senior.

3 Q Is he the junior or the senior first
4 engineer?

5 A That's senior first engineer.

6 Q That is spelled with an S-a-n-i-o.

7 MR. FARKAS: He's saying senior.

8 BY UNKNOWN:

9 Q Are you saying senior or --

10 A Senior.

11 MR. FARKAS: Yes, he's saying senior as
12 opposed to junior.

13 UNKNOWN: Oh, okay.

14 THE WITNESS: We have two ranking first
15 engineers on board, one junior and one senior.

16 BY UNKNOWN:

17 Q I understand now.

18 A You should believe it was his first name?

19 Q I thought it was his last name. I'm sorry.
20 Do you have his name?

21 A His name is Fleseland.

22 MR. LEHRER: F-l-e-s-e-l-a-n-d. Fleseland.

23 BY UNKNOWN:

24 Q When you went into the boiler room after the
25 explosion, did you change the position of any of the

1 valves?

2 A No. I didn't touch anything.

3 Q Did you see anybody change any valve
4 positions, turn a valve open or closed?

5 A No. I didn't see anything.

6 Q You mentioned that the staff chief engineer
7 was there and had done something to stop some leaks.
8 Do you know what he did?

9 A Yes. We was closing the main valve from the
10 (inaudible) water tank. That's the only thing we
11 closed. And then on the air bottle on the port side we
12 closed two valves on the air to stop the air leaking.
13 That's everything we touched.

14 Q You didn't close any fuel valves?

15 A No. We didn't touch anything. There was no
16 chance to do that.

17 Q What about the valves on the settler, the
18 suction valves, did you close those at any time or do
19 you know if anybody did?

20 A The suction valve on the fuel lines I think
21 the chief engineer was closing them manually from the
22 control room over around -- outside the control room.
23 There is a remote station where you can close it.

24 Q On which day of the week do you normally get
25 your preventative maintenance work orders from the

1 first engineer?

2 A It can be any day, not any regularly. It can
3 be Monday or Tuesday or Friday or Saturday. It all
4 depends on what is in the computer. When the data
5 arrives for maintenance, it goes automatically out.

6 Q Would you receive work orders more than once
7 per week? Could you receive one on Monday and then
8 another one on Thursday?

9 A No. Once a week at most.

10 Q But it could be any day of the week, so you
11 could get one say on Monday and not get one until
12 Friday the following week?

13 A Yes, you can.

14 Q After you do the work orders, you give the
15 paper back to the first engineer?

16 A I have to sign them and the date on them and
17 I return them to the first engineer.

18 Q Are you normally able to keep up with the
19 work orders?

20 A Yes.

21 Q Is that all the time or usually you're able
22 to keep up? I mean are there weeks that you're not
23 able to do all of your work orders?

24 A So far I've been able to do all the work
25 orders I have received, except one. That's concerning

1 the fuel heaters. They were not able to close them
2 down because some of the steam valves was leaking.

3 Q Which fuel oil heater was that?

4 A For port side.

5 Q Do you have one fuel oil heater on the port
6 side and one on the starboard side or how is it --

7 A There's three fuel heaters for starboard and
8 three for port side.

9 Q So one of them on the port side you could not
10 secure the steam valve?

11 A You could close the steam valve, but it was
12 still leaking steam through. It was due for cleaning,
13 but I'm not able to do it, because it was still boiling
14 inside.

15 Q About how long ago was that? When was that
16 supposed to be done?

17 A Six months ago.

18 Q Are the engineers paid additional
19 compensation for overtime work?

20 A Yes, they are.

21 Q Is it for work beyond eight hours or is for
22 work beyond ten hours that you get extra compensation
23 for?

24 A We're paid for ten hours a day.

25 Q That's your base pay?

1 A Yes. Basic pay, including everything.

2 Q And after ten hours per day, then you get
3 extra a day?

4 A No. No, nothing. If we have to work more,
5 we didn't receive anything.

6 MR. ROTH-ROFFY: Okay. That's all I have for
7 right now. I'll go ahead and pass it back to Brian
8 Curtis.

9 FURTHER EXAMINATION

10 BY MR. CURTIS:

11 Q Just to touch briefly on the fuel quality
12 again, any problems in the recent past with water in
13 your fuel, any sputtering flames? Any problems --

14 A No.

15 Q Not at all that you recall?

16 A No.

17 Q Steam drum and super heater safety valves,
18 from your quarters, if you were to lift a drum safety
19 testing lever, would you hear that from your quarters?

20 A If the it is lifting, I am not able to hear
21 it from my cabin.

22 Q Following the explosion, did you hear anybody
23 else the day of the accident, after the accident, say
24 that they heard the safety valve lift?

25 A No.

1 Q On the boilers, did you have low water level
2 cut outs that would --

3 A Yes.

4 Q -- cut out the water?

5 A It would shut off the --

6 Q Do you recall the last time those were
7 tested?

8 A For Boiler 23 I'm not quite sure.

9 Q Had you ever seen them tested on these
10 boilers, the low water cut out?

11 A Oh, yes. Many times. Electronic will do it.

12 Q When you tested them, what did they secure?
13 Did they trip the boiler?

14 A They closed the fuel.

15 Q Boiler feed pumps, any problems with those?

16 A No.

17 Q No recent maintenance on them?

18 A No. To problem.

19 Q Any problems with the pressure regulators on
20 those, the operation of the feed pumps?

21 A No. They have been working normal.

22 MR. CURTIS: That's all I have right now.

23 FURTHER EXAMINATION

24 BY MR. PAILLACAR:

25 Q Carlos Paillacar, Coast Guard Safety Officer

1 again. You've stated that when the engineer
2 (inaudible) they are given a book, an orientation book?

3 A Yes.

4 Q That has drawings?

5 A Yes. Drawings of all the systems and the
6 engine, all the regulating valves.

7 Q Who prepared that book?

8 A The first engineer.

9 Q The first engineer. Are there any copies of
10 that book available on board the vessel right now?

11 A Yes, there should be.

12 Q Also, since you took over on the job, in '87
13 I believe, you've stated that the crew has not changed
14 as far as the amount of crew and that is between 83 or
15 89. However, you did have a change of nationalities of
16 the crew?

17 A Yes. We had a change of some of the crew,
18 the nationality, but it's an engineer from the
19 Philippines or an engineer from Norway (inaudible).

20 Q But the engineer who were from Norway before
21 that?

22 A Yes. The engineer normally used to be from
23 Norway.

24 Q Did you experience any difference in the
25 knowledge of the engineer when they changed?

1 A No.

2 Q No?

3 A No.

4 Q They were able to perform the same tasks with
5 the same efficiency?

6 A I didn't see any problem with any one of
7 them.

8 Q What about the language?

9 A Just like me, more or less able to speak.

10 Q No problems with the language?

11 A No. I have no problem to understand them.

12 MR. PAILLACAR: Okay. That's all.

13 MR. OLSEN: Ken Olsen, Coast Guard.

14 FURTHER EXAMINATION

15 BY MR. OLSEN:

16 Q On the fuel oil service system supplying the
17 boilers, where is the fuel oil cleaned or strained?

18 A There's one filter in front, before the fuel
19 pump and one filter after the fuel pump.

20 Q And is there one fuel pump for all the
21 boilers or one for each boiler?

22 A There is two fuel pumps for starboard side,
23 two fuel pumps for port side.

24 Q Do both of them have to run at the same time
25 or is only --

1 A No. That's enough with one of them.

2 Q Who cleans that discharge strainer?

3 A The stoker. He does it every Wednesday.

4 Q Excuse me?

5 A Every Wednesday.

6 Q Every Wednesday?

7 A Yes.

8 Q The crew bar, you mentioned jokingly the crew
9 bar. There is a crew bar?

10 A Yes, there is.

11 Q What are the hours?

12 A I have no idea, I've never been there.

13 Q Are there taps available any time or do you
14 know?

15 A I don't know.

16 Q You talked about crew size, the engineering
17 compliment. How often is a riding gang used within the
18 engine room?

19 A I'm not quite sure if I understand that
20 question.

21 Q A riding gang, extra labor. Maybe
22 pipefitters or welders.

23 MR. FARKAS: Contractors.

24 THE WITNESS: Contractors? I've not seen any
25 special contractors so far this year.

1 BY MR. OLSEN:

2 Q The engineer that passed during the casualty,
3 I think it was -- I don't know the name, Ramon?

4 MR. LEHRER: Rassal.

5 THE WITNESS: We called him Rassal, yes.

6 BY MR. OLSEN:

7 Q Can you tell us about his experience? Did
8 other engineers talk about his capabilities? Was it
9 proficient?

10 A I don't think anybody had anything to
11 complaint on him. He had been on the ship since 1987
12 and been on board 17 years.

13 Q Seventeen years?

14 A Yes.

15 Q Very good.

16 A So he knew the ship very well.

17 Q You have the AMOS system as one method of
18 managing work.

19 A Yes.

20 Q But as you know, on a ship like this there's
21 all kinds of problems, whether it's a busted gauge line
22 or gauge glass that are beyond regular maintenance that
23 require repair.

24 A Yes.

25 Q How is that work managed?

1 A If there is a pressure gauge broken, we
2 change it. If there is a temperature reader broken, we
3 change it. We are going to the central store, take out
4 a new part and replace the broken one.

5 Q If you can give us an idea, how much of the
6 repair work does not come out of the AMOS, 50 percent,
7 20 percent?

8 A No, I can't answer that.

9 Q Do the engineers keep a separate work list,
10 not necessarily maintenance, but repair for their own?
11 Like when you go through the boiler room, do you keep
12 a list of I've got to fix this, fix that? Do you have
13 those types of work lists?

14 A I have and all the engineers.

15 Q And this is separate from the AMOS?

16 A Yes, it's separate from AMOS.

17 Q Are you aware of any methods to bypass the
18 safety mechanisms of the combustion control system that
19 you might have seen? Maybe a block of wood holding the
20 damper open or whatever?

21 A I don't think you are able to do it with
22 saying what you are doing. You are not able to bypass
23 the safety system. It will shut down, never mind what
24 you are doing.

25 MR. OLSEN: That's it for me.

1 MR. BUTCHKO: John Butchko, Metro Homicide
2 again.

3 FURTHER EXAMINATION

4 BY MR. BUTCHKO:

5 Q Do you know when one of the employees, one of
6 the crewmen named Maury Batesta (phonetic)?

7 A Batesta is a first assistant. Yes, I knew
8 him.

9 Q A first assistant?

10 A Yes.

11 Q Do you know, was he on duty at the time --

12 A No. He was in his cabin.

13 Q Do you know his cabin number?

14 A No. I'm not quite sure where it is.

15 Q Another question I have, you mentioned
16 earlier about the photocell or whatever it was, the
17 photocells that are cleaned seven times each day. Is
18 that something documented or is that just something
19 somebody would do and just go about their business?

20 A It's something you only do and you don't
21 write it down anyplace. You just do it.

22 MR. BUTCHKO: Okay. Nothing else. Thanks.

23 FURTHER EXAMINATION

24 BY MR. ROTH-ROFFY:

25 Q Following up on that cleaning of the

1 photocells, what would prompt the stoker to clean it?
2 Why would he clean it?

3 A There is a little gauge on the indicator, it
4 goes from 20 to zero. If it falls below let's say 15,
5 we have to do something. We have to check the burner
6 and see what's wrong, if it's the photocell or
7 whatever.

8 Q The engineer's work list, your work list for
9 the boilers, where is that kept? Do you keep it in
10 your state room or not?

11 A I normally -- for work that is done on the
12 boiler I used to keep in a special book in the control
13 room.

14 Q That's the work list for things that you know
15 you have to do?

16 A Yes.

17 Q Could we get a copy of that as well?

18 MR. FARKAS: What are you looking for? I'm
19 sorry.

20 MR. ROTH-ROFFY: The engineer's work list for
21 the boilers.

22 MR. FARKAS: From this specific period of
23 time or for the week?

24 MR. ROTH-ROFFY: Well --

25 MR. FARKAS: So we can assist you in getting

1 that.

2 MR. ROTH-ROFFY: I suspect that it would have
3 only the work items on it that currently require work,
4 so it's not by the week. I would say -- well, correct
5 me if I'm wrong, but your work list has all of your
6 outstanding items, right? That you need to do. It's
7 not something that's done on a weekly basis
8 necessarily?

9 THE WITNESS: There is nothing at the moment.
10 Nothing special to do on board.

11 FURTHER EXAMINATION

12 BY MR. OLSEN:

13 Q You have no items on the boiler that you need
14 to --

15 A Not at the moment.

16 Q What about before the accident, your work
17 list for the boilers?

18 A I was finished with the work list. There was
19 nothing else to do, just regular maintenance.

20 Q How about in preparation of future shipyard
21 or dry dock, who maintains those lists?

22 A That will be the chief engineer, in
23 cooperation with the engineer. The engineer is giving
24 the chief engineer a list about things I know have to
25 be prepared. I give the list to the chief engineer and

1 the chief engineer will give the list to shore.

2 MR. ROTH-ROFFY: That was Ken Olsen. Tom
3 Roth-Roffy is back.

4 FURTHER EXAMINATION

5 BY MR. ROTH-ROFFY:

6 Q That list for shipyard repairs, do you have
7 such a list now that you have a running list of stuff
8 that you want done during the upcoming shipyard?

9 A I'm not able to answer either yes or no, I
10 don't know. But I believe he has.

11 Q No, do you have a list. Have you given him
12 any items?

13 A No.

14 Q For the boilers for the upcoming shipyard?

15 A No, not at the moment.

16 Q When was the last time the vessel was in the
17 shipyard?

18 A Eighteen months ago.

19 Q And do you know when it's scheduled to go in
20 again?

21 A I don't know.

22 Q Also, you mentioned that you haven't had any
23 problems with water in the fuel oil. Do you
24 periodically drain water out of the settler tank?

25 A Every day before we open a fuel valve we

1 check the drain.

2 Q And how much water do you normally get
3 draining out?

4 A Most of the time zero.

5 Q Most of the time you don't get any water?

6 A Yes. Most of the time there is no water.

7 Q Have you had problems with leaking heater
8 coils in the settler tanks? Steam heater coils?

9 A There was a problem in February, I believe
10 one of the heating coils was leaking.

11 Q And were you getting water out at that time
12 of the drain or how did you find it?

13 A It was in the filter tank. On a low pressure
14 system you have a filter tank that is supposed to catch
15 up with the oil.

16 Q Was it a sight glass that had an oil level on
17 it or how did that work?

18 A There's an open cover on the tank. You can
19 look into it.

20 Q How many settling tanks do you have for the
21 boilers? Is there two settling tanks?

22 A Three for each side, one, two and three;
23 four, five and six.

24 Q Do you have a separate service tank that the
25 fuel oil pumps take suction from or do they take

1 suction from the settlers?

2 A There is suction from one, two, three, four,
3 five and six.

4 Q From the settling tanks?

5 A Yes. No, no, no. The settling tanks, I do
6 not recall the number at the moment, but they're not in
7 the same room.

8 Q You said that Raymond de Larice was the
9 stoker on duty --

10 A Yes.

11 Q -- at the time of the accident? How about
12 Mr. Bernal Ramel (phonetic)?

13 A He was the waterman on 4:00 to 8:00.

14 Q He was the waterman?

15 A That's a guy that transfers fresh water from
16 different bottom tanks to the day tank.

17 Q Which kind of water would that be?

18 A Drinking water.

19 Q Was that the only function of the waterman,
20 to transfer drinking water from lower tanks to the
21 upper tanks?

22 A No. Not his only, but one of the main
23 reasons for him to be there. His other function was to
24 check the bilges and pump to the bilge tank if
25 necessary.

1 Q Did the stoker and the boiler operator, did
2 they maintain a log, a written log of operating
3 conditions of the boilers?

4 A The stokers have inside a telephone booth in
5 the boiler room. They have a special book where I was
6 writing different things.

7 Q Did they also have a clip board with
8 readings, boiler readings, or not?

9 A Yes, they have a clip board that was taking
10 the temperature on the different (inaudible) and so on
11 during the watch.

12 Q And where was that clip board kept?

13 A Close to the telephone booth, between Boiler
14 23 and 24.

15 Q Who would normally review the entries in
16 these books and the log? Would that be the senior
17 engineer on watch or would it be the engineer in the
18 control?

19 A No, it will be the engineer down in the
20 boiler room. If he passed by and looked, I think most
21 of the engineer was looking inside the book, but it was
22 only for the stokers.

23 MR. ROTH-ROFFY: We are continuing with the
24 interview, I just flipped over the tape. I think
25 that's about all I have for now. I'm going to go ahead

1 and make another round. Brian?

2 MR. CURTIS: None for me.

3 MR. OLSEN: I have a few questions. Ken
4 Olsen here.

5 FURTHER EXAMINATION

6 BY MR. OLSEN:

7 Q With the automation system, is the current
8 cycle variable and have you seen that adjusted on any
9 of the boilers?

10 A It's constant, 70 seconds.

11 Q Has there ever been any time where a boiler
12 has had a flame out on any boiler on the ship not due
13 to a loss of power, just a flame out for some other
14 reason?

15 A There has been flame out because of alarm,
16 high steam temperature, and there has been boiler out
17 because of high pressure. But not on 23.

18 Q If the stoker and the engineer fail to take
19 out that fifth burner, would the fuel pressure cut back
20 enough to prevent you from getting a high pressure or
21 would you automatically get to that high pressure and
22 cut out point?

23 A Can you repeat the question?

24 Q If you left the five burners lit in port,
25 could the fuel pressure cut back enough where you would

1 not get the high pressure cut out?

2 A If I understand the question right, if you
3 leave the boiler with five burners during staying at
4 the pier, it might be a situation where the fuel pump
5 is not able to go low enough, if it has increasing of
6 the pressure, and then the boiler will shut down. It
7 will close off the fuel, because if the steam
8 (inaudible) is too low and there is one thing on the
9 boiler called minimum flow. You are not able to go
10 below a certain point. The minimum flow is only
11 working as long as the boiler is in operation.

12 MR. OLSEN: That's it. Thank you.

13 MR. BUTCHKO: John Butchko from Metro
14 Homicide again.

15 FURTHER EXAMINATION

16 BY MR. BUTCHKO:

17 Q I want to ask you about some fire alarms that
18 are recorded on the record with the ship, actually the
19 day before the explosion. Were you involved or were
20 you notified of any fire alarms, to check any fire
21 alarms out the day before or up to the time of the
22 explosion at any time you were on duty?

23 A No.

24 Q No?

25 A No.

1 MR. BUTCHKO: Thank you. I have no further
2 questions.

3 MR. CMAR: Steve Cmar, Norwegian Cruise Line.

4 FURTHER EXAMINATION

5 BY MR. CMAR:

6 Q Just to clarify a few things again, we talked
7 about the cleaning of the photocells. You mentioned
8 standing orders previously. Is there anything in the
9 standing orders about cleaning the photocells?

10 A Not in the standing orders, it's only -- it's
11 normal procedure if you see the level on the indicator
12 is going below a certain point, you have to check
13 what's wrong.

14 Q And lastly, again a point of clarification.
15 You had mentioned that the fuel oil pumps, that there
16 were two pumps on both sides, starboard and port.

17 A Yes.

18 Q Is there a set of filters before and after
19 discharge for each pump or is there one -- are they in
20 parallel?

21 A It's a common filter for both pumps.

22 MR. CMAR: Thank you.

23 MR. ROTH-ROFFY: Okay. Does anybody else
24 have any further questions?

25 (No response.)

1 MR. ROTH-ROFFY: It's about five minutes to
2 4:00. That will bring to a close our interview of the
3 senior engineer, Mr. Nicolaisen. Sir, thank you very
4 much.

5 THE WITNESS: Okay.

6 MR. ROTH-ROFFY: You've been very helpful.

7 (Whereupon, at 3:55 p.m. the interview was
8 concluded.)

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