## DEPARTMENT OF TRANSPORTATION NATIONAL TRANSPORTATION SAFETY BOARD OFFICE OF MARINE SAFETY

In the Matter of:

MAJOR MARINE ACCIDENT, DCA 03 MM 032

\_\_\_\_\_

May 31, 2003

INTERVIEW OF:

THORVALD BENJAMINSEN

The above entitled matter came on for hearing, pursuant to notice.

PRESENT:

TOM ROTH-ROFFY, NTSB BRIAN CURTIS, NTSB STEVE CMAR, NCL CHRIS OELSCHLEGEL, USCG

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PROCEEDINGS
       3
                              MR. ROTH-ROFFY: Good morning.
         is about 10:20 in the morning and it is the 31 of May
                 And we are here to interview for a second time,
       5
         Mr. Benhaminsen, Second Engineer on the Norway.
       6
                    BY MR. ROTH-ROFFY:
                    Sir, the reason why we have called you back
          is we understand that you have may, may have some
       9
          additional information about your observations around
      10
          the time of the explosion. Specifically, I understand
          that maybe you might have seen some, some individuals
      12
      13
         with some oil on them.
                   No, I did not.
      14
               Α
      15
                   You did not.
                        Everything was normal.
      16
               Α
                   No.
                   No, I am sorry, people, did you see any crew
      17
members18with oil on them?
      19
              Α
                   Around the time of the --
      20
               Q
      21
               Α
                   No, no, no.
      22
                   Either before or after the explosion.
      23
                   Definitely not. I remember very, very well
         where these people were, and it was just before the
      24
      25
         explosion. I remember as I looked my watch because I
      26 was thinking about the Immigration and I remember my
         watch was about, was six thirty. And when I came down
      27
      28 to the engine room from the control room. And I was
         looking over my system, which I operate, just checking
      29
      30 out that I was, and in order to, to hand it over to my
         successor. So, but just a brief, brief look.
      31
         Everything was okay. And then I went to the boiler
      32
      33 room, I did not look at -- then, but, maybe I was, a
      34 couple of minutes after. And then I saw, I saw Ramon,
         the stoker who had died yesterday. I saw him there
      36 with the boiler 22. And he was, he was de-slagging the
          dampers, it is routine operation. You have to do that.
      38
          And I did not talk with him because he was busy doing
      39
          this. And then I met also in the boiler room, I met
         Rosal with the boiler's pump in the boiler room.
      40
         in the boiler's pump is between boiler 21 and 22.
      41
         Because he was busy with the deballasting, because when
      43
         we, the -- you know what I mean by
      44
                   Yes.
      45
                    That is when they are bilging, we had to
               Α
      46
          deballast.
                       So, that is also routine operation. Every
         Sunday. So I said goodby to Rosal, and then I met the
      47
      48 waterman, Sumalio. I met him in the, with the water
      49 tight door, water tight door, between aft stabilizer
      50 room and boiler. He had his clipboard, a clipboard --
      51 He was suppose to make the round.
                                             So, and it to read
         the counters for the water and some other things --
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So, I don't know what the time was then, but
   it was -- before the explosion. And then I saw no one
 3 with oil on them. Nothing. So, when I said goodby to
   Ramel, I went, proceeded forward to go to the engine
   and then I met Sumalio, the watchman in the forward
   auxiliary engine room.
             So, I said goodby to him, and took the
   elevator up and come up on deck, everything, the
   explosion come.
 9
10
             You said you met Sumalio.
11
        Α
             Yes.
12
             Could you spell that name?
13
        Α
             S-U-M-A-I-L-O. So he was there on the only
14 person down there who survived and that was because he
15 was in the opposite direction of that, in the fore part
16
   of the engine compartment. He was between the, he was
   between the generators, diesel generators.
17
18
             All right, if you would continue on.
   went and saw Sumalio.
19
             Yes.
20
        Α
21
        Q
             And then you went up on deck and --
             I went up, up, one deck, to the engine
23
   elevator. The Biscayne Deck.
24
        Q
             To the incinerator.
             No, no, no, engine elevator
25
        Α
26
             Engine elevator.
27
        Α
             Yes. And I took that elevator to Olympia
28 Deck where I live.
29
             Okay. And then you took the elevator to the
   Olympia Deck and then what did you do?
30
             Then I went straight out to get some air on
31
32 the port side. Not far from my cabin, to get some
33 air, I was, I was with -- what do you call it?
34
             Handrail. A handrail?
35
             Yes, handrail, when you look, you are on the
        Α
36 deck. You rest your hands and look out.
37
             Right.
             Leaning over the rail, I looked at the sun
38
39 rise. And then I heard some shaking, and the
   explosion. And I saw the black smoke.
40
41
             So you saw black smoke.
42
        Α
             Yes.
43
             Did you also see steam or white smoke?
44
             I can't really remember the white smoke,
45 because when I saw black smoke, lots of it, because it
   is from -- all over. Then I knew that something
46
   terrible had happened down in the boiler room.
47
48
             When I first heard, when I heard the
   explosion I thought something had crashed into the
49
50 ship's helm from the shore side. Something big. But,
51 when I saw the smoke I was, that something had happened
52 in the boiler room.
```

- So you definitely heard or felt the vibration Q before --
  - Α Yes, I did. I felt the vibration, yes.
  - Before you saw the smoke?

3

7

11 12

13

16

17

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19

20 21

22

23

24

25

26

27 28

29

30

31

35

38

39

40

41 42

43

44

45 46

47

- I didn't look at the funnel, I was looking in 5 Α 6 the opposite direction when I heard the bang.
  - Then what did you do after that? Q
- After that I, my first thought was to come down and see what I could do. So, I met the Staff 9 10 Chief Engineer.
  - And what did you meet him?
  - In the, outside his cabin. We don't live far away from each other. So, I met him and the two of us rushed down to the control room. There was lots of water and it was dark and terrible. Lots of -everywhere.
  - You went down to Biscayne Deck, which side did you go down?
    - We went down with the, where the elevator is. It is in the, in the center, no, wait a minute. on the starboard side, starboard side.
  - As you were going down the starboard side on the Biscayne Deck, did you see any, any crew members that had been injured?
  - No. Didn't see anything. But, it was dark. It was, so my thought was to reach the control room, and see what we could do there. And when we came to the control room, everyone who was suppose to be there, was there, was there.
    - And who were those people that were there? 0
- It was Mr. Hoyland, it was Chief Engineer, it 32 was Chief Electrician, and the First Electrician, who I can't recall was there. But, everything was dark, it 33 34 was thick, it was alarms all over. And me and Staff Chief Engineer took, ran down to the -- to see if it was anyone we could save. There we found Rosal down in the -- He was conscious. And he was moaning, it was terrible, he could not see and he could not breathe, he said, all the time. And we managed to get him up in the control room. And I was sitting there besides Rosal all the time until the medics came and carried, gave him oxygen and carried him out.
  - Exactly where did you see Rosal the first time?
- A  $\,$  In the, then, no, yes, it was behind, it is where the men usually stand in the aft engine room where we are suppose to be when it is standby. So, it is, if you go down from the control room to the burner 49 room, you have to go through that. It is behind the 50 water pumps. It is a big -- that you can go through with a, not a door, but a passage. In that passage we found Rosal. It was floor, a crate, laying down in

```
that rubber plate of the stair. It had been damaging
   the stairs with tremendous, it had been blown from the
3 boiler room, I think.
             And was he near that plate?
 5
        Α
             Yes, he was near that plate.
 6
             About how far?
7
             Oh, it was just by the plate, because when I
   come down, I remember I was, I was, not slipped on it,
   but it was something down there, that was not suppose
 9
10
   to be there.
             At that time were the lights out or --
11
        Q
             Lights out completely. It was dark.
12
        Α
13
             Like at night.
             And we had flashlights.
14
        Α
             Okay. Backing up in time, when you were in
  the control room, were the lights out or not or were
16
17
   they on?
18
        Α
             Emergency lights, they are on.
19
        0
             Are there no emergency lights in the aft --
             Yes, they are, but maybe they were on, too,
20
21 but it is not so very much effect, so we had to use the
22 flashlights to see.
23
             Okay. You stated that it was completely dark,
24
   is it possible it really wasn't completely dark?
25
             Maybe it was not, all completely dark, but I
26 can't recall that. Because I was very stressed.
27
        Q
             Sure.
28
        Α
             And all my, my mind was about Rosal.
                                                     All my
29 thoughts on him.
             When you saw Mr. Rosal, did he say anything
30
   to you about what had happened?
31
32
        Α
             No, only about his pains.
33
        Q
             His pants?
34
             Pains, pain.
        Α
35
             His pain.
             Did you see any oil on him?
36
        Α
             Lots, he was covered in oil and the fuel oil,
   all over. He was badly, badly, badly, bad condition he
38
   was. Looks terrible.
39
             MR. CURTIS: Excuse me, Brian Curtis.
40
41
             I didn't get that. He was covered in oil or
   he was not covered in oil.
42
43
             MR. BENJAMINSEN: He was covered in oil,
44
  complete.
45
             BY MR. ROTH-ROFFY:
             You say he was completely covered in oil.
46
47
        Α
             Yes.
48
             Did he have oil on his face?
             Yes. But, his face is where you could see
49
        Α
50 that, it was damaged because the skin, everything was
   starting, it was, he didn't have any lips. The tongue
52 was burnt to nothing. It was white in his mouth.
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MR. ROTH-ROFFY: Okay. Brian, if you would
   like to go on.
3
             BY MR. CURTIS:
             Brian Curtis.
             Just going through, he was covered oil, yet
 5
 6
   he was in the, he was found aft engine room.
7
             Yes.
             First I would like to go back, just for my
9
   own clarification regarding fuel oil strainers.
10
        Α
             Yes.
             When are they, are they changed at any
11
12 particular frequency or as needed?
13
             It is not, not my systems. I will not say
   anything about the routines. But, I think they have to
14
   change them frequently, and as needed. But, that is
16
   only my, my thoughts.
17
             You say frequently, could you just --
18
             No, I cannot say anything about that because
   I am not working on that system. But, if it is needed
19
   to change it will be changed. But, I guess it is
20
21
   changed frequently to --
             Do you know, do you know if they had changed
   them that morning on your watch, or previous to it?
23
             I can't answer that. I don't know.
24
25
             How could it, is it logged anywhere, or
26 written down as a record, the last time the strainer
27 would have been cleaned?
28
             I guess so, but I am not sure about that.
             I am, but I guess so, that it is still, but
29
30 it is the engineer who runs the system can answer that.
             And who would have changed over and cleaned
31
32 the strainer?
33
        Α
             Who do that?
34
             Yes.
35
             I guess it is, it is system, the stoker on
  the system that they man the stoker or maybe, this is
   only guesses for me, so I cannot, I don't think it
   great that I answer, answer that, because it is just
38
   assumptions. You need to ask that system engineer, who
39
   runs the system about it.
40
             And the stoker on watch at the time was?
41
        0
42
        Α
             Ramon.
43
        Q
             Ramon.
44
             Did you see Ramon after the explosion?
45
             No. The last time I saw him was when I
46
   passed the boiler room and saw he was busy with the
47 boiler 22.
48
             And just briefly, I may have missed it, but,
49
   when you saw Mr. Rosal before the explosion, his
   location?
50
51
             His location was with the burners pump,
52 between burner 21 and 22.
```

So, the only individual you saw covered in oil before or after the explosion would have been 3 Rosal. After, after the explosion. So, before the explosion, everything was normal when I was there. 5 that must have been, I don't know. 6 7 Just one more question. Regarding the, did the boilers have periscopes? No. No. 9 Α How do you check the clarity of the --10 11 It is, it is indicator, electronic device that you read. Not the periscope. 12 13 Q And were they functioning at the time? 14 Α Yes, I guess so. But, yeah, I believe so. When was the last time you would have checked 16 those, that they were functioning, that they could look 17 at them? 18 It is better to take a look at the funnel, 19 because it is television, it is a monitor down in the 20 boiler room with the camera, camera. So, if anything is malfunctioning, the burners, for instance, you would see that, the smoke. So, it is best way to monitor. Had you checked the analyzer that morning? 23 Q The analyzer? 24 Α 25 The monitor. 26 Yes, we see the monitor. It is a television So, if it is just slightly smoke, it will, it 27 screen. 28 will be corrected. So, it is, it is all the time. So, the monitor is over the alarm screen. And the control room has the same view. 30 31 0 Okay. So, the control room and the boiler room has 32 Α 33 the same view. 34 And those monitors in the control room, they have no means of recording, they only monitor. 35 They are only, they are just, they don't 36 37 record a thing. I don't think so. 38 MR. CURTIS: Thank you, sir, that is all I 39 have. 40 MR. OELSCHLEGEL: I don't have any questions. BY MR. CMAR: 41 This is Steve Cmar. 42 43 Can you tell me, say like the last half hour 44 before you left the watch, what was everybody doing? Oh, well, Ramon, the stoker was monitoring 45 He was in the boiler room, where he is 46 the burners. suppose to be. 47 48 That is Ramon Villaris? Yes. And Rosal was --49 Α Before you leave him, that is all he was 50 51 doing, he was doing nothing else, during the watch? He is suppose to be in, on the boiler room 52 Α

```
floor.
              But, he had no other activities during that
3
   watch.
        Α
              He was just, he wasn't working anything.
 5
        Q
 6
              No, no, no, no.
        Α
 7
              Okay. All right.
 8
        Α
              Just routine like cleaning all the dampers,
 9
   for instance.
10
              Deslagging those dampers.
11
        Α
              Yes, deslagging the dampers.
12
        Q
              Right.
13
              And how about Bernal?
              He was doing what, he was just starting on
14
        Α
15 his round. He is suppose to go and -- the tanks, read
   the compete test and --
16
17
              And Bernal, is he the waterman?
18
        Α
              He is the waterman.
              And as the waterman and specifically on that
19
   watch, there was no other work he was doing, just prior
20
21
   to the casualty?
22
        Α
              No.
23
              And you and Rosal were both the engineers in
24
   the engine spaces.
25
        Α
              Yes.
26
        0
              You both make rounds for the spaces.
27
        Α
              Yes.
28
              Was Rosal doing any work prior to the
   casualty on any equipment?
29
             Yes, he was deballasting.
30
        Α
              Just deballasting.
31
        0
32
        Α
              Deballasting.
33
              Nothing else.
34
              So, when I left him, when I come down, again,
35
   he was looking at the meters on the, on that ballast
   pump in, between boiler 21 and 22. Everything was
36
   going very, very smooth.
37
38
              So, during the watch when you were on watch,
   the fuel strainers were never switched?
39
              No, never.
40
        Α
              Never switched.
41
        0
              If that should happen, I would have known
42
        Α
43
  that.
44
        Q
              I am sorry, say that again, please.
45
              If that was, should be done, I would have
        Α
46
   known that.
47
              You would have known.
        Q
48
              Yes.
        Α
49
        Q
              Okay.
              And the watch, the engineer that comes on,
50
        Α
   would have known it.
51
              Okay. I think I missed something previously
52
        0
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when you said just Ramon was deslagging.
        Α
              Yes.
3
        0
              Rosal was at the ballast pump.
4
        Α
              Bernal was, oh, he was in the aft stabilizer
5
        Q
   room making rounds.
6
7
        Α
             Yes.
8
        0
             Okay.
9
             He was with the clipboard.
        Α
10
        Q
             Clipboard.
              It is in that, with the water tight door.
11
        Α
12
        Q
             Right.
13
        Α
              I remember he had taken the clipboard out of
   the shelf and looking at it when I left him.
14
   hands and said goodby.
15
16
              What, how would the watch have reacted to a
17
   drastic steam pressure drop? How would they react to
18
   that?
19
        Α
              If the steam pressure drops.
             Yes. How would they react to that?
20
        Q
             Oh --
21
        Α
              Including the whole team down there, all of
22
23
   them.
              It depends what the, what makes the steam
24
        Α
25
   pressure drop.
             Okay. Well, give me the various scenarios, if
26
        Q
   you would?
27
28
        Α
              It is a bit difficult question.
29 guess, I guess shut down the boiler, the particular
   one, shut down the burners.
30
              Shut down the burners?
31
        0
              Yes, shut down the burners, if it was a
32
        Α
33
   leakage from the boiler -- make the steam pressure
34
   drop.
35
              And then you also have, we also have --
   burner -- that we cannot insulate the burner.
36
37
        Q
              Isolate the boiler.
38
        Α
              Isolate the boilers.
39
        0
              Okay.
              If it is an emergency shutdown the burners.
40
        Α
             Okay. All of the fuel pumps are located on
41
42
   the starboard side, correct?
43
        Α
              Yes.
44
        Q
             Right in a line there.
45
              In the line, in the far starboard side.
        Α
              Okay.
46
        Q
47
              And there we have the heaters.
        Α
48
        0
              And the fuel heaters.
49
        Α
              Yes.
              And the are right in a line, too?
50
        Q
51
        Α
              Yes.
              Is there anything that you recall that done
52
        Q
```

```
1 to the fuel heaters during the watch?
3
             Is there any work that would normally be done
   with the fuel heaters?
             The only thing is to, and that happens from
  time to time, to adjust the temperature on the fuel
   oil, from time to time it happens that the temperature
   rises or go down, so then they have to open or shut, by
 9
   pass.
             Did that happen say the half hour preceding
10
   the --
11
12
        Α
             I can't recall that. But, that is routine.
13
             That is routine. So, that is not something
14 that would have necessarily been recorded.
15
        Α
             No, no, no, that would not be recorded.
16
        Q
             Okay.
17
             That happens from time to time.
        Α
18
             I may be repeating questions and I am sorry
   if I am.
19
20
             Yes.
        Α
             Any, any fuel pump problems that you are
21
22 aware of with any of the pumps?
23
        Α
             Not, not on that watch.
             Okay.
24
        Q
25
        Α
             Not on that watch.
26
             Okay. Not on that watch, but, were there any
27 problems prior?
28
        Α
             Yes.
             Within the last previous few days?
29
30
             Yes, there were problems with the fuel
31 pressure on fuel pump 27, I think it was, that it was,
32 what do you call it --
33
        Q
             Fluctuating.
34
             Fluctuating, yes.
        Α
35
             Okay. Was that corrected?
             Yes.
                   That was corrected, that was corrected
36
   in the way that we can take the -- in manual and then
38 take it back, out -- But, you would have to ask the
39
   assist.
40
             Ask whom?
        Q
41
        Α
             The engineer who has assist.
             Okay.
42
        Q
43
        Α
             Or the --
             Which engineer has the fuel pumps?
44
        Q
45
             Huh?
        Α
46
             Which engineer has the fuel pumps?
47
             The engineer who has everything regarding the
        Α
48 boilers, is Nicolaisen, the second engineer.
49
             Nicolaisen.
50
             He is the right person to ask about that.
51
             MR. CMAR: I don't have any more questions.
```

Thank you.

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BY MR. ROTH-ROFFY:
             Going back to that, following up on that same
  issue.
           The fluctuation of the pressure, is that the
   fuel pump discharge or was it the fuel pressure to the
   burners?
             Discharger from the fuel pumps. But that did
 6
7
   not happen in this particular time, that I recall it.
   It happened a couple of days before.
             And can you describe that fluctuation in
 9
10
  terms of the range --
11
        Α
             Yes.
12
             -- you know, from so many bars?
             From, from 30 bars down to 25, I guess,
13
14 something like that. But, not over 30 bars. It was,
   it was, it is suppose to be on 30 bar, but it was going
16 down. From 30 bar to about, about from 25 to 30 bar.
17
             And could you describe how fast it was
18 fluctuating?
             Like this.
19
        Α
             Could you describe it in words, please? Five
20
21 cycles per second, or two per second. Just so, you
22 know, we can't record your hand.
             Yes, maybe three cycles per second. But,
23
24 that is just --
25
             A rough estimate, just a --
26
             A rough estimate.
        Α
27
             Sure.
        Q
28
             And you said if you switched it to manual --
29
        Α
             Manual, and then back to auto again, it was
30 working satisfactory.
             And how long often would that problem come
31
32 up?
33
        Α
             Not too, very often.
34
             About once a day or --
        Q
35
        Α
             No, no, no, no.
                               It was, it was, I only
36 recall that it had happened some days before.
             You only recall it happening this one time?
38
        Α
             Yes.
39
             Now regarding the fuel oil heaters, you
40 mentioned that the only thing you ever had to do with
41 them was to sometimes the temperature would go out of
  range and you would have to either open or close the by
42
43 pass.
44
        Α
             Yes, yes.
45
             Was that the way you normally had to do it?
   Was that by pass always --
46
47
             That was, that was the normal.
                                              That was
48 normal, yes.
49
             Okay. So that temperature regulator didn't
50 work at all, or it worked a little bit but not that
51 well. You always had to maybe help it a little bit.
52
        Α
             Yes, yes. That is true.
```

```
1
        Q
              Okay.
              That is my, what do you call it? What is the
 3
   right word?
 4
             Recollection.
        Q
 5
        Α
             My recollection about it.
 6
             Okay.
7
              The stoker used to collect this.
        Α
              The stokers would do it automatically.
 9
        Α
              Yes.
10
              The engineer would not necessarily --
              If the engineer was there, he would do it. Or
11
   wait until the boiler -- and stoker fix it. It did not
12
   take a long time either, just five seconds or so.
13
             Okay. If you can recall, you mentioned the
   first time we talked to you, you said that you left the
   engine room, I believe after you engaged in jacking
16
17
   gear.
18
              Yes.
        Α
              And then you returned, I don't recall, could
19
   you tell us approximately how long you were out of the
20
   engine room or what time you left and what time you
22
   returned?
23
              Oh, I don't recall. I guess I was away for,
   I was only in the, I was in the control room. I guess,
24
25
   I was there for 10, yes, maybe 10 minutes, but, it is
   just my, I don't look at the watch.
             You were in the control room.
27
        Q
28
        Α
             Yes.
             After you engaged the turning gear?
29
30
        Α
             Yes.
              For 10 minutes.
        0
31
             About 10 minutes.
32
        Α
33
             And then you left.
34
             And then I left the engine room and went down
        Α
35
   to look at the my system for last time, the operators
36 down there and say goodbye to the, to the men there.
             Okay. So, I guess I misunderstood you the
38
   first time, I thought you had left to go take care of
39
   Immigration.
40
              Yes, yes, but, I will do that afterwards.
        Α
              After you have said goodbye to the --
41
42
        Α
              Yes, yes.
43
        Q
              Okay. I understand.
              That is where I have to leave the watch to
44
        Α
   go, I was committed to do that.
45
              Okay.
46
        Q
47
              I was permitted to leave the watch early.
        Α
48
49
        Α
              So, after, after the standby.
50
        Q
             Okay.
51
              (Pause.)
              BY MR. ROTH-ROFFY:
52
```

Did you also close the main steam stops to the main engines or who did that? 3 Α Yes. 4 You did that yourself. Yes, I did that, it is routine, a standby 5 Α Before we engage the turning gear, we have to 6 routine. 7 stop the main steam boiler. 8 Did you also break vacuum on the main 9 condenser? No, no. The vacuum will be there all the 10 11 time. 12 Okay. And you mentioned that Mr. Ramon was --13 He is deslagging at the dampers. Α And I believe the first time you talked to us 14 you said he was on a ladder. 16 Α That is true. 17 Do you know which burner he was deslagging at 18 that particular time? Because, the upper burner, I guess it is 19 number five. 20 Number five. 21 22 I guess so, but it is not, it is the upper, the burner that is on the highest level. You have to 23 24 use a ladder to reach it. And I am sorry, I have forgotten, how long 25 have you been assigned the Norway? 26 27 Α One year. 28 Q One year only. 29 Α Yes. And has it been as a first engineer? I mean, 30 I am sorry, as a second engineer when you, for the one 31 year? 32 33 Α Yes. 34 Okay. I think I have just one more question. 35 Going back to Mr. Rosal, when you first found him, you said he was covered in oil. 36 37 Α Yes. 38 Q And that he was also burned. 39 Yes. Α 40 How did you, how do you know it was oil that the was, he had on him? Did you see it dripping off of 41 42 him somewhere or --43 Α It was completely covered. 44 Is it possible --45 Α Hair, everything. Is it possible that it was just burning that 46 you saw rather than oil? 47 No, because I am very sure of that because 48 when I was watching him in the control room, before the 49

50 medic came, I was comforting him and talking with him, 51 and I had, his neck was resting on my arm. And my arm

was black with the burn and the fuel oil. I am

```
positive about that.
             So you had his head on your arm and you are
3 black, your arm got black --
        Α
             Yes, yes.
 5
        Q
             Okay.
 6
             Completely. That was oil.
        Α
7
             Did he have it also on his shirt and pants?
             It was very dark, so I can't remember where
   it was, but it was all over him, as far as I saw.
9
             Okay.
10
11
             It was, I guess all, oil all over his body.
12
             Okay. And at any time did he tell you what
13 happened?
                  Just moaning. And the only thing he
             No.
        Α
15 said was "I can't see and I can't breathe. Give me
   air." The last, when he was laying down on the floor,
16
   he said all the time, give me air, give me air.
17
18
   guess his lungs were burned.
             MR. ROTH-ROFFY: That is all I have. Brian/
19
20
             BY MR. CURTIS:
21
             Just two quick questions. Brian Curtis.
22
             Fuel pump number, that was number --
23
        Α
             Twenty seven.
24
             Twenty seven and that supplied fuel pressure
25 to --
             To the 22, I am not quite sure, but I guess
        Α
   it is on the boilers on the port side, 22 and 24.
27
             And when you were having that problem, did
28
29 you ever see the burner trip because of the
30 fluctuation?
31
             No, no, no. But, this was very rare, very
32 rare.
33
             MR. CURTIS: Thank you.
                                      That is all I have.
34
             BY MR. OELSCHLEGEL:
             I just have, I mean, this question may have
35
36 been asked already. Chris Oelschlegel with the Coast
   Guard.
38
             On this particular watch, the fuel oil
   strainers are not normally changed over on this watch
39
   and cleaned out, the strainer cleaned out.
40
41
        Α
             No.
             Is that correct?
42
        Q
43
        Α
             That is correct.
             Not on that particular watch.
44
45
             That is correct.
        Α
             Okay.
46
47
        Α
             But, this is, for the system, and the people
   who run the system. But, if it is needed, it has to be
48
   changed, of course.
49
             Right, right.
50
        Q
51
             But, it was not done on my watch.
        Α
             And one other quick question is does the, and
52
        Q
```

```
this may have been asked previously as well, but does
   the Norway normally bunker in one particular take on
   bunkers or one particular spot on a routine basis, to
   your knowledge?
        Α
             It is not in my knowledge.
 6
             Not.
        0
7
             You have to ask the Chief Engineer about
        Α
8
   that.
             MR. OELSCHLEGEL: That is all I have.
 9
             BY MR. CMAR:
10
11
             Steve Cmar, NCL.
12
             Just one point of clarification. Ramon was
13
   just laying there, top burner on which boiler?
             The burner 22.
14
        Α
15
             Twenty two.
             Boiler on the port side.
16
        Α
17
             And this is, again, we talked about this, you
18
   left the engine room, you were free to leave the engine
   room from the watch. You went to the control room.
19
             Yes, to say, say goodbye to Mr. --
20
21
             And then you came back down to the engine
22 room to say goodbye to everybody.
             Yes, but I was also looking after the
23
24 operating system I have.
25
             Okay. All right.
        Q
26
             To see if everything was okay.
27
             And when you left the engine room went to the
28 control room, were there about 10 minutes, went back
29 down, and nothing had changed in what they were doing
30
   in that time?
31
             Nothing.
        Α
32
             At that point you were, no red zone.
33
             No, no, no.
34
             Okay. And then you left and went up to your
35 cabin.
36
             Everything was working quite normal when I
   left and that was just minutes, a couple of minutes
38
   before the blast, I think.
             Okay. Is there anything, once you have put
39
   the turn gear in, and the watch, are the same number of
40
   people still on watch?
41
42
        Α
             Yes.
43
             Okay. And once the turning gear has been put
44 in, do they go into a different routine or are there
45 other things that they might be doing after the, after
   red zone and they are in port?
46
47
        Α
             Yes.
48
             Could they start work on anything or is there
49
   anything planned to work --
             Yes, the main thing is deballasting. We have
50
        Α
51 to deballast. That is routine. We engage to turn the
   gear, we record the chief officer and -- starts
```

```
deballasting.
        Q
3
        Α
             Start to deballasting, we do that.
             And that is Rosal?
             That is the engineer who works, Rosal was
 5
        Α
 6
   doing that.
7
        Q
             Okay.
8
              (Change of tape.)
             MR. ROTH-ROFFY: Okay. We are resuming our
 9
   interview of Mr. Benjaminsen. It is about seven
10
   minutes after 11 on the 31 of May 2003. And Stephen
   Cmar was asking his questions. Maybe you could reask
   the question, because I think it got --
13
             BY MR. CMAR:
14
15
             I will go back a bit just to make sure.
16 had asked you about Rosal, you said Rosal was doing the
   deballasting.
17
18
        Α
             Deballasting, yes.
             And the other two individuals that were on
19
20 watch, was there anything specific they had planned,
21
   any work that they had planned when they came in the
22 port?
             No, just monitoring, Ramon has to monitor the
23
   boilers due to being the stoker on watch, has to be in
24
25 the boiler room.
             Okay.
26
                      So nothing specific, no planned --
        Q
27
        Α
             No plans.
28
             Or unplanned maintenance.
29
        Α
             No, no.
             And I will ask this, as a routine when you
30
   come into port because you have, you have, the watch
31
32
   has changed and it is, you are not at sea, would that
33
   be a time when they might change strainers? Is it
34 possible?
             I don't know.
35
        Α
             You don't know. Okay.
36
37
             MR. CMAR: I don't have anything else.
38
             MR. ROTH-ROFFY: Okay.
39
             BY MR. ROTH-ROFFY:
40
             Tom Roth-Roffy, again.
             I think we are almost finished with you.
41
   Thank you very much for being patient with us.
42
43
             Could you describe how you divided any of the
44
   watch duties with the other second engineer?
45
             Yes. The watch, there are engineer, two
   second engineers and one third engineer is on this
46
            So, it is one second engineer has to be in the
47
   control room. And the other second engineer has to be
49 down in the engineering compartments, boiler room with
50 the responsibility all over the place, the forward --
51 And on this watch it was two engineer machine officers
   down there, a second engineer and a third engineer.
```

So, Rosal and I was leaving the watch, Mr. Rosal was in charge of the engineering compartments down there.

- Normally when you stood watch with Mr. Rosal, how did you divide the watch duties? Would you cover the forward --
- No, we just covered, just agreed to, okay, I Α will go there, you will go there. So, it is not this is mine, or this is, it not like that.
- So, when you agreed to that, you agreed that you would go in one direction, he would go in another 11 direction.
  - Yes, yes. That is --Α
  - On the round and --
- -- how it works. And when we are not on the round, we are suppose to be in the aft stabilizer room, or in the boiler. So, so, the engineer on watch can 16 reach us if something they want us to do. The engineer in the control room. But, if we are not there, he will page us. We have a paging system that is covering all 19 the engine spaces. 20
  - So on your rounds you would cover the whole machinery spaces, forward to aft?
    - Α Yes.

6

7

9

10

12

13

14

17

21

23

26

27

29

31 32

33

41

42

45 46

- 24 And Mr. Rosal would do the same thing on his 25 round?
  - Yes. Yes, that is true.
- And about how many rounds would you do during 28 a four hour watch?
- Oh, it is, well, when we, when we take over 30 the watch, you have, the first thing is you have to go down before the watch start, 10 minutes before, about. And then you talk with engineer who shall be relieved, if it is anything special. So, when he is leaving the 34 watch, we have got all the information that is
- necessary. Then, then we start on our rounds. there are two engineers down there, some watches
- have -- so, it is, it shall be engineers who are down 38 there, agrees where to go.
- 39 So you would make your rounds independently, you wouldn't go as a team? 40
- No, not as a team. And we are overlapping each other, too. So, if I start to go forward engine 43 room, I will go everywhere, I will cover everything from forward to aft and he will cover everything from aft to forward, so we overlap each other.
  - I see.
- 47 Α And it works very well to do it that way. 48 And of course, we do rounds during the watch,
- 49 but very strict round when we take over the watch and 50 various strict round before you go off the watch. But,
- all the times during the watch, we are in different 52 places and looking things over.

- Do you maintain any type of a log entry sheet or a data --3 Α No. -- checklist or anything like that? 5 Α No. 6 As part of your, you don't take readings on 7 machinery? The person who takes the readings, is 9 the stoker on watch, he takes readings and writes down what the pressure is. And it is a watchman who is, the 10 stoker, who is watching the diesel generators. taking down the data sheets, and it is the workman, so 12 it is three data sheets that is written down during the 13 watch. And these are given to the first engineer after the watch in his, so he can collect them. So, so, the sheets are in the ship. 16 17 So, at the end of each watch, the data sheet 18 is given to the first --19 It is, it is in his --Okay. But is it for 24 hours or is it for 20 21 four hours? Four hours. 22 Α 23 Four hours. 24 And everything, and the data sheets from the 25 water man is written down in the engine note. That is all counters, and, and the, shows how much oil is in there, sub main, for the -- and it is how much water we 27 28 have produced and so on. And the, it is also written down from all the pressures, the temperatures from the fuel oil and everything, from them, controller, you take the values and write it down in there, and will 31 32 note. So, everything is there. 33 I would like to try to do as reconstruct your 34 72 hour history, what you did, if you can remember, three days before the accident and also if you could 35 help me try to reconstruct Mr. Rosal's history, his work, you know, how many hours of overtime he worked
  - be easier that way.

    A Oh, this is a bit difficult to, about Mr.
    Rosal's whereabouts.
  - Q All right, let's start with him, then, first. He stands watch with you four o'clock to eight o'clock in the morning and four o'clock in the evening.

and so on. So, let's start with yours, maybe it would

- A Yes.
- Q Four o'clock in the evening to eight o'clock.
- A Yes.

38

39

40

41

42 43

44 45

46

47

- Q And when do you normally work your overtime?
  When does he normally work his overtime?
- A It is, used to be from after the breakfast, after getting, we go, been relieved, we go up, get breakfast, and then go down and take a --

So you would get relieved a little bit before eight or what time would you normally? 3 Oh, no, we have to be, go when we are -- So, eight o'clock. 5 Eight o'clock is when you would leave the 6 engine room? 7 Α Eight o'clock is when the watch is over. 8 0 Okay. Four to eight. 9 Α 10 Q Right, and then you would go, eight o'clock 11 you would go up to breakfast. Yes. 12 Α 13 Q And have breakfast for a half hour. 14 Α Yes. 15 0 Forty five minutes. 16 Α Approximately 20 minutes or something like 17 that. 18 Okay. And then you would go back down and 19 start --20 Α Working on your system, yes. 21 Q Okay. And Mr. Rosal's system was what, do you 22 recall? 23 Mr. Rosal's system was the ballast system, 24 the ballast pumps and the ballast tanks, everything 25 concerning the ballast, the pumps and everything. 26 And did he have any other system that he was 27 responsible for? No, only, only, each engineer has his system, 28 it is only one system for each engineer. 29 Okay. Let's just start from the morning of 30 the accident, the four in the morning, did you work or 31 do you know if Mr. Rosal worked overtime in the evening 32 33 after you got off watch eight o'clock at night? 34 No, I don't think, it is not, it is not, we 35 don't used to work. We work in the morning. If it is 36 not anything special going on. -- with the systems, things like that. 38 Okay. You don't know if Mr. Rosal had a problem with the ballast system on the night --39 Not as I can recall. 40 41 Is there any type of preparation work that he 42 might have had to do before deballasting? 43 No. We do that on the watch, and it is an 44 easy task. Just open a couple of valves and start 45 deballasting. Was it Mr. Rosal's responsibility to ballast 46 the ship as the fuel was being burned off? Did he have 47 to do that? 48 49 No, no, no. It is not his responsibility. It is the engineer on duty's responsibilities. So, if 50 he is, he will be given the order to start deballasting.

Okay. So whoever was on duty when it is time to deballast or deballast? 3 Α Yes, has to do it. Has to do it. And Mr. Rosal would not 5 necessarily be the one to do it. 6 That is correct. Α 7 Okay. And did you transfer ballast water every day as you burned off fuel underway? No, it only, when we come into Miami on 9 10 Sunday, we started to deballasting the ship and then we are starting to filling ballast from Tuesday. But that 11 12 is not my watch. 13 Okay. On Tuesday you normally would fill the ballast tanks. 14 15 Α Yes. How about any other days that you would take 16 17 on ballast? 18 No, it is -- Oh, it is difficult for me to remember when. But, I guess it is Tuesday. 19 Tuesday and maybe one more day or just only 20 21 Tuesday? 22 Α Maybe one more day, but, they are not on my 23 watch. 24 Okay. And then when you arrive into Miami on 25 Sunday morning, you would deballast. 26 We would deballast. 27 Okay. Okay. So, let's back up -- I am sorry. 28 Α It is the chief officer who orders when to 29 do, to ballast or deballast. We can't do anything about that without an order. So, the chief officer calls the control room and give the orders to start 31 ballasting or deballasting. And then the control room 32 33 calls down to the engineers on watch and give the 34 orders to start ballasting or deballasting. 35 Okay. Now, again, trying to reconstruct 72 hours history of what was, you know, you and Mr. Rosal 36 were doing. So you didn't work the evening before. 38 Α No. 39 The day of the explosion. But, how about, so, you stood a watch from four o'clock in the evening 40 41 to eight o'clock and you probably went to sleep then? 42 Went to shower and sleep or relaxing. 43 All right. Do you know who Mr. Rosal would 44 spend his time off watch with? Did he have a particular friend or --45 46 Yes, I guess he and Valenzuela and Ferrer 47 were close, close friends. 48 0 With Valenzuela and who else? 49 Α Ferrer. Ferrer. 50 0 Ferrer. 51 They were close, close friends.

from the same place, both on the same, yes.

```
F-E-R-R-E-R.
        Q
              And what is Mr. Ferrer's job?
 3
        Α
             He was engineer.
              On which watch?
 5
        Α
              Third engineer on the watch before, on the
 6
   third watch.
7
              And he was also close with, I am sorry, I
8
   didn't write it down?
             Valenzuela. He is dead.
 9
        Α
10
        Q
             Right.
             But maybe more, but that I just remember
11
   these.
12
13
              Okay.
14
        Α
             He was very, very respected, very, everybody
   liked him.
15
16
              Do you know if he was having any, any
   personal problems that he talked --
17
18
        Α
             No.
19
        Q
              -- to you about?
20
        Α
             No.
21
              Any problems with his family at home?
             No. I don't think so. Rosal was a very
22
23
   straight person.
                      He has a high morale person.
24
             His demeanor usually was he a very friendly
25
   person or quiet?
             Very friendly, very friendly person.
26
        Α
27
        Q
             Outgoing or quiet?
28
        Α
             He was a very nice person, smiling and nice
29
   and easy to talk with, everybody liked him.
             And on the day of the accident, how was his
30
   demeanor? Was he normal?
31
32
        Α
              Yes, quite normal.
33
              You didn't see any, any problems that he
34 talked to you about, or you didn't notice anything that
35 he was depressed or anything like that?
        Α
             No, no.
36
37
        0
              Okay.
38
        Α
              Not at all.
              Do you recall if he looked, did he look like
39
   he was well rested or tired?
40
             He looked, he looked well rested. He was,
41
        Α
42
   everything was quite normal.
43
             All right, now going back in time just a
44
   little bit more, do you remember if he worked overtime
   on the day before the accident?
45
46
              Yes, it is usual to work overtime.
47
   suppose to work two hours overtime each day.
48
             Okay. So you worked two hours.
        Q
              Yes.
49
        Α
              That would have been Saturday, during the day
50
51
   on Saturday?
52
        Α
             Yes, or less.
```

```
Q
             Okay.
              So, that is a daily routine.
                                             After watch,
   you take your two hours, at least.
             Do you remember how many hours you worked on
 5
   Saturday?
             Again, I guess I worked two hours.
 6
        Α
7
             Okay. Do you remember seeing him working on
   anything on Saturday?
              Not that I can think of. I can't recall, but
 9
10
   we have different systems.
11
              Sure, I understand.
12
              I am working with my mine, he is, it is a
        Α
13
   vast space down in engine rooms.
             Sure.
                     So you don't remember in the past
14
   week or so if he was having any problems with the
   ballast system?
16
17
             Oh, I can't remember that.
        Α
18
             Okay.
              I can't. Nothing unusual with the system as I
19
        Α
20
   can recall.
             MR. ROTH-ROFFY: Okay. I think that is all I
21
22
   have.
           Brian.
23
             BY MR. CURTIS:
              Brian Curtis.
24
              I just have one quick question, sir.
25
   want to get the number of the fuel pump that was
   supplying boiler 23 at the time of the accident.
27
28
        Α
             One.
29
        Q
             Number one.
30
             No, no, no, it was one, but I don't recall
   the name, the number. If I see it, if I see that
31
32
   display, I would say it was that number, I can't
33
   remember. So you have to --
34
             MR. CURTIS: I have no further questions.
35
             MR. OELSCHLEGEL: No further questions.
             MR. CMAR: Okay. If I could follow on to that.
36
37
             BY MR. CMAR:
38
             What are the numbers of the fuel pumps?
39
             We have four fuel pumps.
        Α
40
             And they have numbers, you mentioned 27.
             Yes, 27, it is 25, 21, 22, but I am not so
41
        Α
   very sure. If you go to the control room, you will see
42
43 that.
             Okay. And you said if you look --
44
45
              It is four fuel pumps.
        Α
46
             Okay. And you said if you looked at the
   display you could tell which one was supplying it.
47
   there just four buttons across or something like that?
48
             It is four, four pumps with two buttons.
49
   They come around in the high speed and in the low, low
50
51
   speed.
             Can you describe if you were thinking of the
52
```

```
display, could your mind could describe which one was
   on for that if there were four in a row or is that not
3 something you can do?
             I think it is better to ask another one about
5 that.
             Okay.
6
7
             For instance, you ask Nicolaisen about that,
8 he will have, give you the correct answer.
             Okay. And last quick question, following
9
10 that, you mentioned the first engineer receives the
   engine room data sheets, is that the first senior or
11
   junior?
12
13
        Α
             Senior.
14
        Q
             Senior. Okay.
                            That is all.
            It is a data sheets for the boilers and for
16 the diesel generators. I guess --
             MR. CMAR: Okay. That is all I have.
17
18
             MR. ROTH-ROFFY: Okay. Sir, I think we are
19 done with you. Again, thank you very much for being
   patient and helping us and hope you have an enjoyable
20
21 vacation under the circumstances.
             Okay. So the time is now 11:30 and that
22
23 concludes our interview of Second Engineer Benjaminsen.
24
             (Whereupon, at 11:30 a.m., the interview was
25 concluded.)
```