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

In the Matter of:

MAJOR MARINE ACCIDENT, DCA 03 MM 032

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May 31, 2003

INTERVIEW OF:

JAKOB SAEBO

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 CHRIS FOONG, NCL CARLOS PAILLACAR, USCG

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PROCEEDINGS
1
                      MR. ROTH-ROFFY: Good afternoon.
4 is <del>January June</del> 2, 2003<del>(sic)</del> and the time is about 1:30 |
5 in the afternoon. We are here to interview Mr. Saebo,
6 first name Jakob, the second engineer onboard the
7 Norway.
            Welcome, sir, and thank you for coming here
9 to talk with us.
            MR. SAEBO: Yes.
10
            MR. ROTH-ROFFY: I am an investigator with the
12 National Transportation Safety Board. And we have come
13 here to investigate the accident that occurred aboard
14 the Norway on May 25, 2003.
                               And the reason we have
15 asked you to come here is because we believe that you
16 may have some information that may assist us in our
17 investigation.
18
            Just for your information, the National
19 Transportation Safety Board is a United States
20 Government Agency that is responsible for investigating
21 transportation accidents in the United States. In this
22 case it is a marine accident and the Office of Marine
23 Safety, of which I am an employee, investigates the
24 marine accidents. So, we have come down to see if we
25 can find out what happened here.
            Our investigation is strictly a safety
27 investigation. It is not a legal investigation.
28 have no interest in pointing the finger at anybody and
29 attributing legal responsibility, strictly safety. We
30 are interested in finding out what happened and making
31 a recommendation to try to prevent it from happening
32 again. Okay.
33
            MR. SAEBO: Okay.
            MR. ROTH-ROFFY: And you have, you know, if
35 you like you can have somebody assist you with the
36 interview and you have a representative here to help
37 you with that, so at any time you need to refer to him,
38 you know, we can stop the tape. Also if you, anytime
39 you need to take a break, for example, you know, have a
40 cigarette or drink water, whatever you need to do, just
41 tell me and we will stop for a break.
            MR. SAEBO: Okay.
43
            MR. ROTH-ROFFY: So, with that I would like to
44 go ahead and ask all the participants in the interview
45 to introduce themselves.
            MR. CURTIS: Brian Curtis, NTSB, Marine
47 Engineering Accident Investigator.
            MR. FOONG: My name is Chris Foong, I am the
49 vice president of Mechanical Operations, NCL.
            MR. PAILLACAR: Carlos Paillacar, Coast Guard
51 Marine Safety Office, Miami, Investigation.
            MR. OELSCHLEGEL: I am Chris Oelschlegel. I
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1 am with the Coast Guard, U.S. Coast Guard, Traveling
2 Inspector from Washington, D.C.
3 MR. CMAR: Stephen Cmar, Norwegian Cruise
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BY MR. ROTH-ROFFY:

- Q Okay. What I would like to do now is if you 7 would, sir, tell me from the time you awoke on the day 8 of the accident, what you did and until, you know, 9 until the time that the accident scene had, you know, 10 been secured, you know, the emergency was over.
- 11 A Yes.

4 Line.

- Q And please describe in as much detail as you 13 can, what you saw, what you heard, and what people may 14 have told you or what you told other people. So, that 15 we can get a pretty good idea of what happened. So, 16 start from the time you woke up either Sunday morning 17 or --
- 18 A I was off duty. I was in my cabin. And I
  19 was awake and watched the -- in the ship. I think that
  20 was -- but, at sometime the ventilating pumps stopped.
  21 The -- was long, maybe two, three, two seconds. And I
  22 stand up and wondering what is happened. I think that,
  23 still that was -- a little bit less maybe. But, then
  24 the lights going off, after about two seconds, no, not
  25 two seconds, but, two minutes. I don't know exactly
  26 what, about two minutes. And then I waiting for the,
  27 more information, what is going on. I think that was,
  28 I know a blackout, normal blackout. But, and they
  29 called down for --
- And the fire alarm, and then I go down to my station. And emergency and when I come down there, again, the generator is running, everything is 33 okay. And the electrician was already there, and he would stay and wait for information.
- So, but, I don't take any time, when this 36 stopped, the generators or whatever. So, I am not sure 37 about that. And after about nine o'clock, but I am 38 not sure about the time then we go off -- My work 39 station is three, and four, starboard side four. I am 40 waiting for boilers. So, that was the, first thing 41 happened.
- Q Okay. That is fine. Now we would like to ask 43 more detailed questions about, you know, your 44 observations on that morning.
- 45 A Yes.
- 46 Q You said about two minutes after you felt the 47 vibration.
- 48 A Yeah, but I do not take the time exactly.
- 49 Q Yes.
- 50 A But, I guess about that.
- Okay. You noticed that the lights went out in 52 your stateroom, were you still in your cabin?

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Yes, cabin, because I was watching TV.
       Α
            Okay. Did the TV go out?
            It would have to be, but, I don't actually
       Α
4 remember that.
            Okay. You just remember the lights --
            Yes, the lights went off and then the TV, of
       Α
7 course, went off, too.
       0
            Okay.
9
       Α
            So --
            And how long were the lights off?
10
            In my cabin, I don't know because that was
       Α
12 off when I went down. And the emergency light is
13 burning, the generator running and the light was on.
            When you left your cabin, were the lights,
15 the emergency lights were on already?
16
       Α
            Yes, that was off, yes.
17
       0
            The emergency lights were not on.
18
       Α
           Yeah, yeah. The crew cabins, the light is
19 off, the passengers' cabins, they are still on, I
20 quess.
21
       Q
            I am sorry, say that again?
22
            The passengers' corridors, they have a light
       Α
23 on.
            Right. There is no lighting in the
24
25 passageways of the crew corridor?
       Α
           Yes, in the corridors.
            In the corridors.
27
       Q
28
       Α
            Yes.
       Q
            So, when you left your stateroom were the
30 lights on in the corridors?
      Α
            That was off.
31
            It was off.
32
       Q
33
       Α
           In my cabin, yes.
34
      Q
           How about in the corridors?
            That was on.
35
      Α
      Q
            That was on.
36
           Yeah, because the emergency was running.
37
       Α
38
       Q
            It had already started.
            Yes, that has already started because it was
       Α
40 running when I come down as should be.
            Yeah. About how long from the time the
42 lights went out, until you left your cabin?
           I don't know exactly how many minutes, but,
44 then they call, call the fire team and then they call
45 down. And then it was ready to go.
            Okay. So you didn't immediately leave your
46
47 cabin.
            No. I was waiting for to see what was
49 happening.
           Okay. And then you went down to the
51 emergency generator room.
       Α
           Yes.
52
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Where is that located?
       Q
            In pool deck four.
       Α
            Pool deck four, about, you know, about what
4 frame number that is, is it aft or forward or --
            I am not -- think about what the frame number
6 that is.
            Is it towards the aft side of the ship?
       Q
            Yes, aft side of the --
       Α
            Sorry, the aft side of the?
9
       0
            The tenders ships. Just in back of that.
10
       Α
            Oh, just in back of that. So it is up on the
11
       0
12 forward part.
13
       Α
            Yes.
                   And you said you met up with who down
14
            Okay.
15 there in the emergency generator room?
            The electrician, the Filipino, what is his
17 name? Hernandez, yeah. Fernando, Fernando.
18
       Q
            Fernando?
            Yes. I think is his name, yeah.
19
       Α
            Fernando Hernandez, of just Fernando?
20
       Q
21
       Α
            Fernando.
                       Fernando.
22
            Do you know his last name?
       Q
23
       Α
            No. I am not so good to remember Filipino
24 names.
25
       Q
            Okay.
26
       Α
            He is on duty in there.
27
            Is he a second electrician?
       Q
            Yes, I guess that, yes.
28
       Α
29
            MR. CMAR: Is this him?
            MR. SAEBO: That is him, yes.
30
31 electrician.
            MR. CMAR: And Fernando, his last name is
33 N-G-I-N-C.
34
            MR. ROTH-ROFFY: That actually sounds --
35
             (Pause.)
            MR. ROTH-ROFFY: Okay.
36
37
            BY MR. ROTH-ROFFY:
            Now is Fernando already there at the space
38
       Q
39 when you --
40
            He was there when I come.
       Α
41
       0
            Okay.
42
       Α
            Yes.
       Q
            When you got there was the diesel generator
44 running?
45
       Α
            Yes.
            Is there just one diesel generator for the
46
47 ship?
48
            It is two.
       Α
            Are they both in the same --
49
       Q
50
            Same, same --
       Α
            Compartment.
51
       Q
52
       Α
            Same.
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And were both of them running?
       Q
            Yes, both of them.
       Α
            And were they both supplying electrical
4 power?
       Α
            Huh?
            Were they also both of them supplying power?
            Yes, yes.
            Okay. And you said you stayed there for a
9 period of time.
10
       Α
            Oh, yeah.
                       Until the alarm going off, and
11 going off the Olympic forward starboard side.
            And during that time did you call the control
13 room?
            I called the control room, but that was only
14
15 for information. Because they stopped the generators,
16 and then they started again. And, but that is not
17 only switchboard, that is only running --
            Okay. I am sorry, I really don't understand.
19 So, you called them, and --
            Asked if the -- start, when I stopped
       Α
21 generator, after that, first, seconds, it started.
       Q
            Right.
22
            Automatically, and then stopped it, and start
23
       Α
24 it again, after.
25
       Q
            Who stopped?
26
            That is, they are getting the generators --
27 into the switchboard and then we stop the emergency
28 diesels.
            Okay. Did they stop them or did they call you
       Q
30 and tell you to stop them?
            I am not sure about that. I think they
32 called Fernando, and he stopped it on the switchboard.
33 That is possible to stop it manually on the
34 switchboard.
            Okay. But, did the engine continue to run?
35
       Q
       Α
            No, then they stop it.
36
37
            Okay.
38
       Α
            Yes.
39
       0
            Then you stopped it.
40
       Α
           Yes, yeah.
           And it was off for a period of time.
41
       0
           Yeah, sometimes and then the chief engineer
42
       Α
43 will do, start it again. But, without --
            Okay. How long was it off?
       Q
            Thirty minutes, something like that, but,
45
46 then, at least 30 minutes.
            Okay.
47
       Q
48
       Α
            Yeah.
            And do you know who he was talking to in the
49
50 control room, Fernando, the first time, was it the
51 engineer on watch or the chief engineer or do you know?
            That have to be chief engineer and the chief
52
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1 electrician.
            Chief electrician was also in the control
3 room?
            Yeah, yeah, in the control room.
            But, you say that the chief engineer asked
6 you to restart it?
       Α
            Yeah. He asked me to start it.
       0
            And did --
            With --
9
       Α
            Okay. At any time did you put it back on, on
10
11 load?
            No, no, not at all happen. It is only
       Α
13 running on --
            Okay. And then when did you stop it again?
       Q
            That was after we had been on the, on the
16 lifeboat station and then they go down again, and it is
17 still running. And the second time I go down, then the
18 chief electrician has stopped it. So, I don't stop
19 that, the last time, the chief electrician does.
            Okay. About how long were you up at your
21 lifeboat station?
            Thirty minutes, something, at least 30
23 minutes.
            Okay. I think, we have a pretty good idea of
25 what you saw that morning.
       Α
            Yeah.
            MR. ROTH-ROFFY: Does anybody need any
28 clarification before I go into his duties and
29 responsibilities, on what he saw that morning and what
30 he did?
          We can always come back to it.
            BY MR. FOONG:
31
            Did you feel one vibration or two?
32
33
            MR. ROTH-ROFFY: I am very sorry, could you, I
34 should have told you this before, but if you could
35 identify yourself for the transcriber, so they know who
36 is talking before you ask a series of questions.
            MR. FOONG: Chris Foong from NCL.
38
            BY MR. FOONG:
39
            Jakob, did you felt one vibration or two?
            I feel maybe a little bit long one, in the
40
       Α
41 two seconds, two seconds, about that, to maybe three.
42 That is a long one, but, I mean, so I don't feel any
43 two explosions.
            BY MR. CURTIS:
44
            Brian Curtis.
45
            The Second Electrician Fernando, did he say,
47 did he indicate that he had been anywhere else and seen
48 anything else when you met him in the generator room?
                He only work, of course, we don't know
            No.
50 any, what actually happened, but, how serious it was.
            And --
51
       Q
52
            So, we only, too much noise to talk.
       Α
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And you were outside the space, so you didn't
2 see the staff?
       Α
            No. No, no, no.
            Okay.
            They closed the doors.
       Α
            MR. CURTIS: That is all I have.
            MR. SAEBO: Okay.
            MR. ROTH-ROFFY: Anybody else have anything
9 about what his observations were that morning?
            (Pause.)
10
            BY MR. ROTH-ROFFY:
11
            Okay. So, let's go to a new topic and talk
12
13 about your job responsibilities and where you work,
14 your work hours. Let's just start with that, which
15 watch do you stand?
16
       Α
            I go on the eight to 12.
17
            And could you tell us what your job
18 responsibilities are?
           My area, that is emergency generators,
20 starting gear, thrusters, the whole thrusters, and the
21 laundry, maintains and everything like that.
           Okay. And could you tell us about your
23 career, your maritime career? When you started going
24 to sea and --
            Oh, that is, I start working in '79, and
       Α
26 mostly on the oil tankers at that time. And I worked
27 all of the time, like I was a motorman and an assistant
28 engineer -- engineer. So, I have been on the different
29 ships, everything from oil tanker, container ships
30 and -- and that thing, two times in the cruise ships,
31 two companies, NCL, but, that is 15 years ago. So, I
32 finally take my vacation and I come back to NCL in
33 August of 2000. And I have the bilge system, and
34 marine clocks, that is my area.
           You had bilge system and what?
       Q
       Α
            -- call me back.
36
37
       0
            Right.
38
       Α
            And that was in 2000.
            I am sorry, you had, at that time you had
40 bilge system, and what else?
            When I was coming back in 2000, then I have
       Α
42 marine clocks.
43
       Q
            Oh, marine clocks.
            Yeah, marine clocks.
44
       Α
45
       Q
            Okay.
            And the two, two last contract I have been on
       Α
47 duty watch stander, as second engineer.
            Okay. In August of 2000, were you, you were
49 assigned to the Norway.
       Α
            Yeah.
            Was that the first time you had worked with
51
52 NCL?
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No, in, about in '85 I was on Skyward.
       Α
            Skyward?
       Q
       Α
            Yeah. But, I think that was in '85, I guess.
4 And they flood out the ship.
            We won't go there.
       Α
            No.
7
            Okay. August 2000, you came back in what
       Q
8 capacity, second engineer?
            Yes. In Environmental --
9
       Α
            Environmental. Okay.
10
11
            Take over title.
       Α
12
       Q
            And you did one trip, one contract?
13
       Α
            Five.
       Q
            Five contracts.
14
15
       Α
            Yeah.
            And then you started sailing as a watch
16
       Q
17 stander, I believe you said.
18
       Α
            Yeah.
       0
            What year was that?
19
            2001, 2002. I don't know exactly the month,
20
       Α
21 but, it was something --
           Okay. And what equipment were you responsible
22
23 for?
            What contract?
24
       Α
25
       Q
            Well, in July, August?
26
       Α
            Last year?
27
       Q
            Correct.
            Yeah, that was the bilge system. The piston
28
       Α
29 pumps and the bilge system, maintaining that system.
            Okay. All right, and you did that for one
       0
31 contract, the bilge system?
32
       Α
            Yeah, one contract.
33
       0
            And then --
34
            Call me back for this contract that I have
       Α
35 this year.
            Okay. So you had not been responsible for
       Q
37 the boiler --
38
       Α
            Not at all.
39
       0
            -- during, anytime during your work with NCL.
40
            No, nothing.
       Α
            But, you do stand the watch in the boiler
42 room now, pass two contracts?
43
       Α
            Yeah, yeah. And the standby --
            Okay. Do you recall any problems that the
45 ship had with the boilers since you have been working
46 with NCL?
47
       Α
            No.
48
            Can you describe any of those problems?
            No, no problems, but, if any, any maintains
49
       Α
50 programs that NCL on that, have to fix it. So, that
51 is, it -- maintain, start it up again.
           Do you ever do any maintenance work on the
52
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1 boiler, even though you were not assigned to it?
            Not at all.
       Α
            Not at all, you never worked on it.
3
       Α
            No. No.
            Can you remember any significant repairs that
6 kind of stick in your mind, work on the boilers, you
7 know, that maybe concerned a lot of people or concerned
8 you?
            Well, maintaining and sometime -- in
10 different boilers, that is normal schedule. When they
11 have a leaking water or whatever and they have company
12 from ashore to look at it. But, they never have
13 something to do with it.
14
       Q
            Okay.
15
       Α
            So, so.
            MR. ROTH-ROFFY: All right, I think that is
16
17 all that I have.
            Brian Curtis?
18
19
            BY MR. CURTIS:
            Brian Curtis.
20
            During your watch standing time, did you ever
21
22 encounter any other black, plant blackouts, loss of
23 power?
            Yeah, there has been one time. One time, in
24
       Α
25 the blackout.
            And could you give us the details of that and
27 what happened?
            That was some electrician use some check on
29 the, on the switch, on the main load, but they don't
30 know exactly what type of switch there, but, and then
31 he pulled that out, that was on record.
            That is the only one?
32
33
            Yes, only one, only record the have.
34 was a different electrician --
            As a watch stander, did any of the stokers
36 ever recently indicate they have had problems with the
37 fire control, the boiler or in the boiler room?
            No, no.
38
       Α
39
            MR. CURTIS: That is all I have right now.
40
            BY MR. OELSCHLEGEL:
            I just have one, Chris Oelschlegel with the
42 Coast Guard.
            Are there engineering logs kept in the fire
44 room during your watches?
            Not in the fire room, but we have it in the
       Α
46 control room.
            Just in the control room.
       Q
47
48
       Α
           Yeah, yeah.
            So --
49
       Q
            And we have an engine logbook for every watch
       Α
51 engineer have to write in, and sign it. And we also
52 have a maintain logbook. So, engineer in that area
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1 have to write down what he is doing, maintaining, and
2 everything.
            So, would a stoker or an engineer watch
4 stander would make his rounds, would he have a book
5 that he would actually write the temperatures and
6 pressures?
       Α
            Yeah, yeah.
       0
            Yes.
            He will do so.
9
       Α
            Okay.
10
       0
            But, that is stoker, take the temperature and
11
       Α
12 all of that.
            Okay. Okay. All right. One other question
14 was and how would you tell where, the condition of the
15 combustion in the propulsion boilers, in other words,
16 if you were, if you had a good flame inside the boiler.
17
       Α
            Yeah.
18
       Q
            How would you, how would you monitor that?
            We have smoke detectors. Then it is going,
19
       Α
20 smoke, the fire, if that is too much smoke, the burner
21 will turn off.
22
       0
            I see.
23
       Α
            And then they could change the smoke
24 detector
25
            I see.
       Q
            So, that is normally a stoker doing it.
26
       Α
27
       Q
            I see.
28
       Α
            And they stay there for the whole watch.
            MR. OELSCHLEGEL: Okay. That is all I have for
30 right now. Thank you.
            MR. SAEBO: Okay.
31
            MR. OLSON: Ken Olson, I came into this
32
33 interview late.
34
            BY MR. OLSON:
       Q
            Hi, Jakob.
35
            Jakob, yeah.
36
       Α
37
            Hi.
                  You are a third --
38
       Α
            A second engineer.
39
       0
            Second assistant. Okay.
40
       Α
            No, second engineer.
41
       Q
            Okay. Good.
            The outboard side of the starboard boiler,
42
43 what is that, is that called that water wall header,
44 what do you call that in the main boiler instruction,
45 the outboard side of the boiler?
46
       Α
            Yeah, on the outside.
47
       0
            Yes.
            That is the starboard side with the
49 propellers up?
            Yeah, yeah, what is that, is that a header or
50
       Q
51 is that oil drum, what do you call that, that, the long
52 piece where all the tubes come together?
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Oh, that is a drum. We have two drums down.
       Α
            Okay. So you do call it a drum.
3
       Α
            Yeah.
            Okay. Good. We have been trying to figure
5 what is the right term for that.
            Yeah, yeah, and we have one in the top.
       Α
7
            The steam drum and you have two mud drums.
       Α
            Yeah, yeah.
            Okay. That is good.
9
10
            I am sorry, I wasn't here, how long have been
11 on the ship?
            Total I have been since August 2000.
       Α
13
       Q
            August 2000.
            Yeah.
14
       Α
            Okay.
                   In this time that you have been
16 onboard, have you, have you heard of or any discussions
17 amongst the other engineers of problems related to the
18 boilers? Structural problems?
            No, not at all.
       Α
            No. Did you ever hear any discussions of
21 micro cracks or what would you call a small crack in a
22 weld?
23
       Α
            The fittings?
            Fittings, yes, any problems with fittings or
24
25 anything?
            No, no. You mean the steam pipes or
27 something like that?
       Q
            No, within the drum, and the seams.
29
       Α
            No, nothing at all.
            Nothing at all.
30
       0
31
       Α
            No.
            Okay. You never heard of any, do you recall
32
       Q
33 any work being performed in those lower drums?
34
            No, no.
       Α
            No, never.
35
       Q
            No, because they are to be certificated.
36
       Α
37
            Certificated.
            Yeah, and we don't have that.
38
       Α
39
       0
            Don't have one onboard.
40
       Α
            No, no.
                   Do you know if, do you know what
            Yeah.
42 ports any work was being performed, if that type of
43 work was going to be done, what port, would they do in
44 the U.S. or would they do it in the Caribbean? Do you
45 know?
            No, it would have to be the first trouble
46
47 possibly --
48
            Yeah.
                    Okav.
            But, I don't know --
49
       Α
50
            Yeah.
       Q
            (Inaudible)
51
       Α
            MR. OLSON: All right, that is all I have.
52
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1 Thank you. Thank you, Jakob.
            MR. ROTH-ROFFY: Just, we might go around one
3 more time. Tom Roth-Roffy.
            BY MR. ROTH-ROFFY:
            Are you, when you were standing watches in
6 the engine room.
       Α
            Yeah.
            Do you recall having problems with regulating
9 fuel pressure, is that something that you had to
10 regularly adjust manually?
            I never adjust that, no.
12
            Would that be something that the stokers
13 would adjust?
            No, not even him. It would have to be the
       Α
15 engineer on the system. If he have a -- whatever, that
16 he adjust it.
17
            But, during the watch, if there was a high
       Q
18 pressure situation or a low pressure, would you go over
19 and make an adjustment?
            No, I am not going to do that.
20
       Α
            Who would do that?
21
       Q
            That would have to be the engineer on the, on
       Α
23 the system or the senior first engineer.
            During your watch, during the night you saw,
      Q
25 you know, a fluctuation or a low situation, wouldn't
26 you have to take care of that?
           No, if that happen, the first thing you have
28 to do -- the fuel tanks, if that is going too low.
29 Then we have sometimes this going up and -- on the
30 pressure. We changed it then, everything is okay
31 again. That has happened, something that is going too
32 low -- tanks --
33
       Q
            That has happened before?
            Yeah. And then we only change back to
35 another tank and everything is okay. And the fuel
36 transfer engineer, he fill it up the next morning.
            Does that happen on your watch or other
38 watches?
            Not on my watch. It used to happen on the
       Α
40 four to eight watch.
            About how many times have that happened, do
       0
42 you think?
43
       Α
           Normally we change before that --
           Right. But, sometimes it has happened?
44
           Yeah, sometimes.
45
       Α
            Sometime or two times or --
46
      Q
47
       Α
            It has happened maybe once.
48
            Once. How about last contract?
            Last contract, I don't go on -- Yeah, two
49
       Α
50 weeks on the -- and then it is not happening on that
51 contract.
```

52

0

While you are on watch, have you ever lost a

```
1 boiler, trip off and you have to slow down?
            That was a trip once, once, and then in
3 the -- room and the engineer in the control room
4 running down and put it in. It takes two minutes.
            What was causing that, do you remember?
            No. I don't remember.
       Α
7
            Do you remember which engineer put it back
       Q
8 on?
9
            The engineer on the system, Nicolaisen.
       Α
            Oh, was he on watch at that time?
10
       Q
11
            Yeah.
       Α
12
       Q
            Oh, he was on watch?
13
       Α
            Yeah. He had the area and he knows it, so.
       Q
            Sure.
14
15
       Α
            Yeah.
            But he had discussed with you.
16
       Q
17
            No, he only tell me when I come back and I
       Α
18 don't know about it before coming back.
            And about, do you recall how often that would
20 happen? Was it only one time that it has happened or
21 more than one?
            Yeah, I would say not so often.
22
       Α
23
       Q
            Very rarely.
            Yeah. But, that could happen, of course.
24
       Α
25
            Sure.
            MR. ROTH-ROFFY: Okay. We will go around one
26
27 more time. Brian.
            BY MR. CURTIS:
29
            Yes, Brian Curtis.
            I noticed between boiler 22 and 23 in the
30
31 phone room, there was a notebook in there, a small
32 journal notebook, and I understand it may have been a
33 stoker's notebook or some watch stander.
34
            I --
       Α
35
       Q
            Are you aware of that or --
            I am not aware of that. Actually I did not
       Α
37 see that. So, it is possible that it was there.
38 stoker's, he used to write in.
39
            MR. CURTIS: That is all I have.
            BY MR. OLSON:
40
41
            Ken Olson.
       Q
            Why you were the watch, second engineer on
42
43 watch.
44
       Α
            Yeah.
            And did you keep track of distilled water
       Q
45
46 consumption?
       Α
            Distilled --
47
48
            Distilled --
            Distilled water consumption that could go up
49
       Α
50 and down.
51
       Q
            Go up and down.
52
            Depending if some pipe is somewhere leaking.
       Α
```

```
Well, did you ever identify some of the ups
2 and downs with boiler problems?
            No. But, if they are leaking, coming, we
4 know what, what boiler is leaking and we close it down.
5 And have a test everybody -- where the leaking is,
6 plug it and start up again.
            Now did you do the chemical testing?
       Q
8
       Α
            No.
            Phosphates and --
9
       0
10
       Α
            No, never.
11
       Q
            You never did.
12
       Α
            Never did that.
            Who did that?
13
       Q
       Α
            That is Thrond Kristensen.
14
            Thrond Kristensen.
15
       Α
            Yeah, second engineer.
16
           You have been onboard since the SMSS and
17
18 IMSIM has come, been adopted.
            Yeah.
       Α
            What are your feelings about ISM, Safety
21 Management Systems? What do you think about it, just
22 generally?
       Α
            It is a good system because -- accidents and
24 everything of that sort -- Yeah.
            Have you ever heard any non conformities
26 being reported up in the system or any, give us like an
27 example of something that might have been reported and
28 corrected within that system, if you know any?
            Yeah. Yeah, -- the correct, if something
30 happens, you know, everything was -- the programs and
31 things, you know.
32
       Q
            Yeah.
33
       Α
            Yeah, that is -- I used to go to the first
34 engineer Samuel, if they had --
            I didn't catch it.
       Q
            First engineer Samuel, if I see something.
36
       Α
37
            Yeah.
       Α
            I tell it to him and ask him to do something
39 about it.
            The first engineer Samuel.
40
            MR. OLSON: Well, that is about all I have.
42 Thank you.
43
            MR. SAEBO: Okay.
            MR. ROTH-ROFFY: Okay. Stephen?
44
45
            MR. CMAR: No.
            MR. ROTH-ROFFY: All right, I think we have
47 got all the information we would like to get from you.
48
            MR. SAEBO: Yeah.
            MR. ROTH-ROFFY: We appreciate you coming in.
49
50 Thank you very much for talking with us. And will you
51 go on vacation?
            MR. SAEBO: I hope to go.
52
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MR. ROTH-ROFFY: Have a good vacation.

MR. SAEBO: It is free to go?

MR. ROTH-ROFFY: Well, let me just end this

interview. The time is about 10 minutes after two.

Thank you very much, sir.

MR. SAEBO: Yeah, thank you.

(Whereupon, at 2:10 p.m., the interview was

concluded.)
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