

NATIONAL TRANSPORTATION SAFETY BOARD  
OFFICE OF MARINE SAFETY

SUBJECT: Major Marine Accident, DCA 03 MM 032,  
Investigation Interviews

DATE OF INTERVIEW: Monday, June 2, 2003

INTERVIEWEE: Bjoern Anvik  
Jr. 1st Engineer, SS Norway

INTERVIEWERS: Tom Roth-Roffy, NTSB  
Brian Curtis, NTSB  
Chris, Foong, NCL  
Ken Olsen, USCG  
Chris Oelschlegel, USCG  
Carlos Paillacar, USCG  
Steve Cmar, NCL

## P R O C E E D I N G

(4:00 p.m.)

1  
2  
3 MR. ROTH-ROFFY: Okay. The time is now about  
4 1600 and the date is the 2nd of June, 2003. My name is  
5 Tom Roth-Roffy and I am an accident investigator with  
6 the National Transportation Safety Board in Washington,  
7 D.C. The National Transportation Safety Board is a  
8 U.S. Federal Government Agency that is responsible for  
9 investigating transportation accidents.

10 In this case, I work for the Office of Marine  
11 Safety and we investigate marine or maritime accidents.  
12 So, that's why we're here.

13 We're conducting a safety investigation and  
14 we're interested in determining the cause of the  
15 accident. If possible, we'd like to determine what we  
16 call probable cause and then we also will like to make  
17 recommendations aimed at preventing similar, future  
18 accidents if we can.

19 So, again, that's our function: a safety  
20 investigation, not a legal investigation. We have no  
21 interest in determining any legal liability for any  
22 person or company or anything.

23 What I'd like now is for each person to go  
24 around and introduce themselves; their name and who  
25 they're representing.

1 MR. CURTIS: Good afternoon, sir. I'm Brian  
2 Curtis of the NTSB. I'm a Marine Engineering Accident  
3 Investigator.

4 MR. FOONG: Chris Foong, NCL.

5 MR. OLSEN: My name is Ken Olsen. I work for  
6 the Coast Guard in Washington, D.C. Our interests are  
7 also to learn about the incident and to figure out how  
8 to prevent future casualties, primarily, marine safety  
9 issues.

10 MR. OELSCHLEGEL: My name is Chris  
11 Oelschlegel. I'm with the U.S. Coast Guard. I'm a  
12 traveling Inspector from U.S. Coast Guard Headquarters.

13 MR. PAILLACAR: My name is Carlos Paillacar.  
14 I'm with the U.S. Coast Guard, Marine Safety Office,  
15 Miami and I'm an Investigator.

16 MR. CMAR: Steven Cmar, Norwegian Cruise  
17 Line.

18 MR. ROTH-ROFFY: Okay, and I see you have  
19 somebody here with you. You have a right to confer  
20 with your representative here. If, at any time, you  
21 don't understand a question or you want to take a  
22 break, or a drink of water, or smoke a cigarette, just  
23 let me know.

24 MR. ANVIK: Okay.

25 MR. ROTH-ROFFY: And we'll stop and take five

1 or ten minutes, whatever you need. Or, if you need to  
2 stop and confer with your representative here, please  
3 just let me know.

4 What I'd like to do is, just to let you know,  
5 I will ask some questions first and then I will pass it  
6 and we'll go around the room this way and everybody  
7 will have a chance to ask questions and then we'll  
8 start again. I'll start again.

9 MR. ANVIK: Uh-huh.

10 MR. ROTH-ROFFY: So it might go around two or  
11 three times.

12 MR. ANVIK: All right.

13 MR. ROTH-ROFFY: To get all our questions  
14 asked. So we'll go ahead and start. I lead off with  
15 the questions. Sir, could you please tell us what you  
16 were doing at the time of the accident, or if you were  
17 already awake. Just go ahead and, in as much detail as  
18 you can, very detailed, tell us what you saw, what you  
19 heard, what somebody might have told you or you might  
20 have told somebody else and any other details that you  
21 can think of from, say from the time you woke up Sunday  
22 morning until the emergency was over.

23 So go ahead and start and we'll just let you  
24 talk.

25 MR. ANVIK: It was about seven, six-thirty or

1 after six thirty. I wasn't leaving. I was staying in  
2 my cabin. I was in the bed.

3 MR. ROTH-ROFFY: Could you turn your radio  
4 down?

5 MR. ANVIK: Oh, yeah, sure. I was in my  
6 cabin and then I wake up, I think, somebody hit the  
7 ship. That's what I feel. And I was confused. I  
8 stayed just up from the bed and then I heard the signal  
9 system, this medical code, and this Bravo -- the  
10 medical code came first -- just after that, the Bravo  
11 code come. Then I take out my boiler suit, flashlight,  
12 and I ran down in the forward boiler room, excuse me,  
13 forward engine room. Then I come down on the B Deck  
14 starboard side. I went all the way aft to the control  
15 room that I need on my station.

16 When I come out of the B Deck, from the  
17 forward boiler room, I go inside all the -- down and I  
18 come out of the B Deck, then I see plenty -- and I  
19 smell something. I don't know what I smell. I see  
20 water. I see some grading plates was coming out from  
21 the boiler room. And that's what I see. Everything  
22 went very fast. Everything went very fast.

23 MR. ROTH-ROFFY: Okay. So I'll try to get  
24 some more questions, some more details. So, as soon as  
25 you heard the Alpha Bravo, you got out of bed and

1 dressed and you went down -- first of all, where is  
2 your cabin?

3 MR. ANVIK: Olympic.

4 MR. ROTH-ROFFY: Olympic.

5 MR. ANVIK: Portside.

6 MR. ROTH-ROFFY: Okay. So, do you recall  
7 which ladder you ran down?

8 MR. ANVIK: I went out of my cabin and I ran  
9 down to the forward engine room.

10 MR. ROTH-ROFFY: But which ladder is -- the  
11 Olympic is like on eleven or something and --

12 MR. ANVIK: I go down the casing. I went  
13 from the Olympic Deck into the casing --

14 MR. ROTH-ROFFY: Oh, I see.

15 MR. ANVIK: -- and follow the letters down  
16 there and then out on the B Deck.

17 MR. ROTH-ROFFY: Okay. So then you went back  
18 into the passageway in B Deck?

19 MR. ANVIK: Yes. Starboard side.

20 MR. ROTH-ROFFY: And then you ran aft?

21 MR. ANVIK: To the control room.

22 MR. ROTH-ROFFY: To the control room. And  
23 you went into the control room.

24 MR. ANVIK: Yes.

25 MR. ROTH-ROFFY: And what did you see in the

1 control room when you went in there?

2 MR. ANVIK: I reported to the Chief Engineer.  
3 We have the stations. I have no fire team. So I  
4 looked at my station. This is outside the door of the  
5 control room.

6 MR. ROTH-ROFFY: Okay. Did you go into the  
7 control room?

8 MR. ANVIK: Yes.

9 MR. ROTH-ROFFY: Who did you see in the  
10 control room?

11 MR. ANVIK: Oh, I see many. I see so many  
12 people. I remember I see the Chief for one I was sure,  
13 but I report to him. I report to him I am on my  
14 station.

15 MR. ROTH-ROFFY: Did you see any injured crew  
16 members in the control room?

17 MR. ANVIK: Yes, later.

18 MR. ROTH-ROFFY: Later?

19 MR. ANVIK: Later.

20 MR. ROTH-ROFFY: But not when you first went  
21 there?

22 MR. ANVIK: Not the first minute I come  
23 there. Not the first minute.

24 MR. ROTH-ROFFY: Did you see the Staff Chief  
25 Engineer in there?

1 MR. ANVIK: Yes, I see Staff Chief Magnus.

2 MR. ROTH-ROFFY: Okay. Did you see Mr.  
3 Benjaminsen?

4 MR. ANVIK: It was also later I see  
5 Benjaminsen, yeah.

6 MR. ROTH-ROFFY: No, the first time you went  
7 to the control room, did you --

8 MR. ANVIK: The first minute --

9 MR. ROTH-ROFFY: Right.

10 MR. ANVIK: -- I don't see him.

11 MR. ROTH-ROFFY: The first minute did you see  
12 the Staff Chief?

13 MR. ANVIK: I see the Chief. I see the Chief  
14 -- the Chief -- there was plenty people come in there.

15 MR. ROTH-ROFFY: Okay. I'm just trying to  
16 see if you arrived before or after the Staff Chief.

17 MR. ANVIK: The Chief and the Staff Chief was  
18 in the control room before I arrived.

19 MR. ROTH-ROFFY: Okay.

20 MR. ANVIK: One hundred percent sure.

21 MR. ROTH-ROFFY: Okay.

22 MR. ANVIK: One hundred percent sure.

23 MR. ROTH-ROFFY: Can you estimate how long it  
24 was from the time you heard the bump, or I think you  
25 said it felt somebody hitting the ship, until the time



1       you left your cabin?

2                   MR. ANVIK:  I went straightaway.  As soon as  
3       I get dressed.

4                   MR. ROTH-ROFFY:  Okay, but you heard, before  
5       you left your cabin, you heard the Alpha Bravo --

6                   MR. ANVIK:  I wake up when I heard something  
7       try to hit us.  I feel it like that.

8                   MR. ROTH-ROFFY:  Right.

9                   MR. ANVIK:  That's what I feel, therefore, I  
10      wake up.  I feel like that something wrong.  Something  
11      wrong.

12                  MR. ROTH-ROFFY:  So, you went first to the  
13      control room and then you say your fire station is  
14      outside of the control room?

15                  MR. ANVIK:  My mobile team, the team, is  
16      outside a half a meter..

17                  MR. ROTH-ROFFY:  Half a meter.  And what are  
18      your duties on that team?

19                  MR. ANVIK:  We are -- my team -- they can use  
20      us everywhere.  We are not a fire team.

21                  MR. ROTH-ROFFY:  Okay.

22                  MR. ANVIK:  We are not a fire team.  We have  
23      no masks.

24                  MR. ROTH-ROFFY:  Who else is on your team?

1 MR. ANVIK: There is a -- engineer, there's  
2 an electrician, there's a technical engine technician,  
3 the most -- I know and there's 3rd engineer.

4 MR. ROTH-ROFFY: Okay.

5 MR. ANVIK: And a hotel engineer.

6 MR. ROTH-ROFFY: Okay, and while you mustered  
7 up with everybody, did everybody show up there to  
8 muster?

9 MR. ANVIK: I saw them all.

10 MR. ROTH-ROFFY: Okay, and then were you  
11 given -- are you the team leader?

12 MR. ANVIK: Yeah.

13 MR. ROTH-ROFFY: Were you given any  
14 instructions to do anything?

15 MR. ANVIK: When I have everything under  
16 control, the Chief said to me: Tell the Engineer to  
17 stop the sprinkler. That was later. That was far  
18 later. And the one electrician he went forward to the  
19 forward room to help starting the diesels.

20 MR. ROTH-ROFFY: Do you remember the  
21 electrician's name that went forward?

22 MR. ANVIK: It was Alban Yucabson.

23 MR. ROTH-ROFFY: Alban Yucabson?

24 MR. ANVIK: Yes.

25 MR. ROTH-ROFFY: Okay. Did you do anything

1 specifically?

2 MR. ANVIK: I was in the control room all the  
3 time. There was -- to the engine. It was not down.

4 MR. ROTH-ROFFY: You didn't go into the  
5 boiler room or anything?

6 MR. ANVIK: No, and then, no.

7 MR. ROTH-ROFFY: Were the sprinklers  
8 discharging where you were outside the control room?

9 MR. ANVIK: There was -- when I come in and  
10 it was down -- when I come into the B Deck, there was  
11 all this -- blowing out. So there was plenty of water.

12 MR. ROTH-ROFFY: Were the sprinklers --

13 MR. ANVIK: Yeah, yeah.

14 MR. ROTH-ROFFY: -- discharging down?

15 MR. ANVIK: Yeah, yeah. And much later, much  
16 later, then they start to get off the whole ship. I  
17 was on the B Deck so I could not tell.

18 MR. ROTH-ROFFY: Sure. While you were in  
19 that area, did you see any injured crew members?

20 MR. ANVIK: Yeah. I see when I come up into  
21 the control room, and I see, I see, and then all the  
22 fire fighters coming in from shore.

23 MR. ROTH-ROFFY: Do you remember which crew  
24 members you saw that were injured?

1           MR. ANVIK: I think, I'm not sure, but I  
2 think I saw --

3           MR. ROTH-ROFFY: Was that in the control room  
4 or outside of the control room that you saw?

5           MR. ANVIK: --

6           MR. ROTH-ROFFY: Okay, I think that's all I  
7 have for the observations after the accident. Does  
8 anybody else have any other questions in this  
9 particular area before we get into duties and  
10 responsibilities?

11           Okay, what I'd like to do now, sir, is if you  
12 could tell me what your job is, what watch you stand.  
13 You're 1st Engineer, is that correct?

14           MR. ANVIK: I'm a 1st Engineer Junior.

15           MR. ROTH-ROFFY: Okay. Could you tell me  
16 what your work hours are and what your job is?

17           MR. ANVIK: Yeah, I can tell you. My job, I  
18 work as a day man. We start at eight o'clock in the  
19 morning. Then I have the day people, the repairmen and  
20 the day people.

21           MR. ROTH-ROFFY: Could you describe those day  
22 people and the repairmen?

23           MR. ANVIK: I can describe -- we meet in the  
24 aft workshop every morning at eight o'clock.

25           MR. ROTH-ROFFY: Could you describe who those

1 people are and how many there are, which are day people  
2 and which are repairmen?

3 MR. ANVIK: We have -- and we have --

4 MR. ROTH-ROFFY: And how many are there?

5 MR. ANVIK: We have seven repairmen, belongs  
6 to me and -- yesterday, seven. This is going up and  
7 down all the time.

8 MR. ROTH-ROFFY: And how much does it vary?  
9 What's the least you've had and what's the most you've  
10 had?

11 MR. ANVIK: The most I've had have been eight  
12 repairmen. I think eight. And the day crew not all  
13 the time and now when we stay here -- let me see --  
14 five, five. They have different jobs when we stay here  
15 in Miami because of the accident.

16 MR. ROTH-ROFFY: Sure. You have a Polish  
17 repairmen?

18 MR. ANVIK: Yeah.

19 MR. ROTH-ROFFY: Is it one or two?

20 MR. ANVIK: All are Polish.

21 MR. ROTH-ROFFY: How many?

22 MR. ANVIK: Today, seven, that belongs to me.

23 MR. ROTH-ROFFY: At the time of the accident,  
24 you had seven Polish repairmen?

25 MR. ANVIK: Six.

1 MR. ROTH-ROFFY: Six, and how many Filipino  
2 workers?

3 MR. ANVIK: Five, six. Five, six.

4 MR. ROTH-ROFFY: So, a total of about  
5 thirteen or fourteen?

6 MR. ANVIK: Yeah, yeah.

7 MR. ROTH-ROFFY: Okay, and could you describe  
8 which systems you were responsible for?

9 MR. ANVIK: Yeah, maintenance.

10 MR. ROTH-ROFFY: Okay. Could you provide a  
11 little bit more details about which systems?

12 MR. ANVIK: Yeah, Fleseland, he's 1st  
13 Engineer Senior. He is the closest boss for me, right?  
14 And we talk together about what we have to do and what  
15 we have to change and what we have to repair, what we  
16 have to do, if we have to clean the condenser or if we  
17 have to clean the boiler.

18 MR. ROTH-ROFFY: So do you work on all  
19 systems on the whole ship?

20 MR. ANVIK: Yes.

21 MR. ROTH-ROFFY: Top to bottom?

22 MR. ANVIK: Yes.

23 MR. ROTH-ROFFY: That's a lot of work, huh?

24 MR. ANVIK: Yeah. There are two 1st  
25 Engineers on board.

1 MR. ROTH-ROFFY: You say you have seven  
2 Polish repairmen, six or seven. How are their skills  
3 levels different from the Filipino? Why are they  
4 different?

5 MR. ANVIK: There's a big difference between  
6 the Filipinos and the repairmen. The repairmen are  
7 people, forty and fifty years old, that have been  
8 working on the ship's yard and they repairmen. The  
9 other guys they cleaning, more cleaning.

10 MR. ROTH-ROFFY: Are they like helpers to the  
11 repairman or not?

12 MR. ANVIK: Carry.

13 MR. ROTH-ROFFY: Help carry?

14 MR. ANVIK: Yeah. Like a new pipe and they  
15 have to get it up into the pipe and so on and so on and  
16 so on. If we need help with something.

17 MR. ROTH-ROFFY: So, the Polish repairmen are  
18 more technical mechanics?

19 MR. ANVIK: Absolutely. Absolutely. In this  
20 group.

21 MR. ROTH-ROFFY: Okay. How about the  
22 boilers? Who would work on the boilers, usually?

23 MR. ANVIK: Everybody.

24 MR. ROTH-ROFFY: The Polish repairman and the  
25 Filipinos?

1 MR. ANVIK: Yeah. If it need the repairman.

2 If it not need them --

3 MR. ROTH-ROFFY: Then the Filipino would do  
4 it?

5 MR. ANVIK: Yeah. If we have cleaning, he'll  
6 be cleaning, take out -- , clean down from top to  
7 bottom. If it's not necessary, they'll do something  
8 with the brick work or whatever.

9 MR. ROTH-ROFFY: So the Filipinos would do  
10 the brick work?

11 MR. ANVIK: No. No. Polish repairman always  
12 do the brick work, but helping, some Filipinos helped  
13 them -- is many people.

14 MR. ROTH-ROFFY: How about blue wrap? Who  
15 would normally do that?

16 MR. ANVIK: Blue wrap is Polish, yes.

17 MR. ROTH-ROFFY: How about plugging of  
18 tubes? Who would do that?

19 MR. ANVIK: Polish repairman.

20 MR. ROTH-ROFFY: How about welding on the  
21 boiler?

22 MR. ANVIK: Polish repairman.

23 MR. ROTH-ROFFY: Do you have one particular  
24 repairman that does welding?

25 MR. ANVIK: No.



1                   MR. ROTH-ROFFY: You don't have one guy  
2                   that's the best welder that usually welds on the boiler  
3                   drum or something?

4                   MR. ANVIK: Yeah. We never did welding on  
5                   the drum. Never happened on the drum. If you're  
6                   talking about leak for the boiler, we can replug it in  
7                   the pipe.

8                   MR. ROTH-ROFFY: And is there one guy who  
9                   normally does that?

10                  MR. ANVIK: I have two guys who do very good  
11                  welding.

12                  MR. ROTH-ROFFY: Who are those two guys?

13                  MR. ANVIK: Huh?

14                  MR. ROTH-ROFFY: The names of those two guys?

15                  MR. ANVIK: Yeah. Stanis -- can I look at  
16                  this? Stanislaw Puchalski. He's a good welder.

17                  MR. ROTH-ROFFY: Okay, last name is  
18                  Puchalski. P-U-C-H-A-L-S-K-I.

19                  MR. ANVIK: Then we have one here, Tokarz.

20                  MR. ROTH-ROFFY: Okay, that's spelled T-O-K-  
21                  A-R-Z. First name Stanislaw. Okay, so you say we  
22                  don't normally weld on the drum?

23                  MR. ANVIK: Never welding on the drum.

24                  MR. ROTH-ROFFY: Never.

25                  MR. ANVIK: Never ever.

1                   MR. ROTH-ROFFY: Who would do the welding on  
2 the drum if it had a leak or if you saw cracks or  
3 something?

4                   MR. ANVIK: You can't weld on the drum. You  
5 can't. You can't.

6                   MR. ROTH-ROFFY: Okay.

7                   MR. ANVIK: This is not allowed.

8                   MR. ROTH-ROFFY: What other type of work in  
9 the past, the recent past, have you done on the  
10 boilers? Do you remember some of the work you've done?

11                   MR. ANVIK: The last work I work on the  
12 boiler was the --

13                   MR. ROTH-ROFFY: Yes.

14                   MR. ANVIK: Yeah, this was cleaning and brick  
15 work.

16                   MR. ROTH-ROFFY: Do you remember when that  
17 was?

18                   MR. ANVIK: Yeah, it was -- the accident  
19 happened last Sunday and then it must be May -- the  
20 boiler -- eight, ten days.

21                   MR. ROTH-ROFFY: So, about eight or ten days  
22 before the accident is when you finished the work?

23                   MR. ANVIK: -- I remember -- yeah, it must be  
24 the boiler. The boiler, before the explosion, I think  
25 -- I not tell you for sure, but I tell you eight to ten

1 days.

2 MR. ROTH-ROFFY: Perfect. Yeah, we can check  
3 the records. That's fine.

4 MR. ANVIK: I don't -- can't tell you the  
5 exactly the date, but I don't light up the boilers. I  
6 work on watch.

7 MR. ROTH-ROFFY: Okay. Do you ever light off  
8 the boilers? Sometimes?

9 MR. ANVIK: Many years ago.

10 MR. ROTH-ROFFY: I'm sorry?

11 MR. ANVIK: Years ago, yes.

12 MR. ROTH-ROFFY: Years ago, but --

13 MR. ANVIK: Not now.

14 MR. ROTH-ROFFY: So you used to be a 2nd  
15 Engineer on here?

16 MR. ANVIK: Yeah, yeah, yeah.

17 MR. ROTH-ROFFY: Maybe this would be a good  
18 time to tell us your background. When you started  
19 sailing on ships.

20 MR. ANVIK: I started sailing ships in 1964.

21 MR. ROTH-ROFFY: And could you describe the  
22 ships you've been on?

23 MR. ANVIK: Yeah.

24 MR. ROTH-ROFFY: Since 1964?

1 MR. ANVIK: -- SS Norway, but I start as an  
2 engine boy on the turbine tanker in 1964. My first  
3 ship was a turbine tanker. Then I went to multi-  
4 tankers and I have been on the cargo ships. I have  
5 been on the -- boats. I have been on the ferry boats.  
6 Yeah.

7 MR. ROTH-ROFFY: So have the ships that  
8 you've sailed on have they been mostly steam ships or  
9 motor ships or a combination?

10 MR. ANVIK: Combination, but had many years  
11 on the steam ship. I am most experienced in steam  
12 ships, but I had many years on motor ships too.

13 MR. ROTH-ROFFY: About how many years on  
14 steam ships total?

15 MR. ANVIK: Total on the steam ships thirty-  
16 five, maybe. Thirty-day. And I don't tell you the  
17 date.

18 MR. ROTH-ROFFY: Yeah, just an estimate.

19 MR. ANVIK: Yeah, yeah, yeah.

20 MR. ROTH-ROFFY: And what license do you  
21 have?

22 MR. ANVIK: 2nd Engineer.

23 MR. ROTH-ROFFY: That's a class three or  
24 class two?

25 MR. ANVIK: 2nd Engineer license.

- 1 MR. ROTH-ROFFY: Is that a --
- 2 MR. ANVIK: It is not a 1st Engineer license.
- 3 MR. ROTH-ROFFY: Is that a Norwegian or --
- 4 MR. ANVIK: Norwegian.
- 5 MR. ROTH-ROFFY: Do you also have a Bahamas?
- 6 MR. ANVIK: Yeah, yeah, yeah.
- 7 MR. ROTH-ROFFY: Okay, and is that steam and  
8 diesel -- steam and motor?
- 9 MR. ANVIK: Yes.
- 10 MR. ROTH-ROFFY: And when did you start  
11 sailing on the Norway?
- 12 MR. ANVIK: I start on Norway in May '83.
- 13 MR. ROTH-ROFFY: '83?
- 14 MR. ANVIK: Right.
- 15 MR. ROTH-ROFFY: And what was your position  
16 when you started on the Norway?
- 17 MR. ANVIK: 2nd Engineer.
- 18 MR. ROTH-ROFFY: And when did you start  
19 sailing Junior 1st Engineer?
- 20 MR. ANVIK: I start in '89. Yeah, '89, I  
21 think, yes.
- 22 MR. ROTH-ROFFY: Since 19 -- correction --  
23 while you sailed as a 2nd Engineer, were you ever in  
24 charge of the boiler maintenance?
- 25 MR. ANVIK: Yes.

1 MR. ROTH-ROFFY: Do you remember during what  
2 period of time that you were responsible for boiler  
3 maintenance?

4 MR. ANVIK: No, I would have to look at my  
5 book, but we have different assistants. Sometimes you  
6 get the boiler. Next time you have assistance --  
7 around.

8 MR. ROTH-ROFFY: Okay, so you're not --

9 MR. ANVIK: Not -- today I have this boiler  
10 vaporizing. Next time it can be -- and most  
11 experienced guys have this boiler.

12 MR. ROTH-ROFFY: About how many years do you  
13 think from '83 to '89 you were -- or how many contracts  
14 -- I don't know how you can estimate that you were the  
15 boiler second.

16 MR. ANVIK: It don't start with the boiler.  
17 Maybe two, three. How many years are you talking  
18 about? You're talking from '83 to '89, right?

19 MR. ROTH-ROFFY: Right. Seven years.

20 MR. ANVIK: Seven years. Let me see. Three.  
21 Four maybe. You can check it.

22 MR. ROTH-ROFFY: Three to four years.

23 MR. ANVIK: You can check it.

24 MR. ROTH-ROFFY: Sure.

25 MR. ANVIK: -- is that good.

1 MR. ROTH-ROFFY: Okay, I'm going to go ahead  
2 and pass it to the next interviewer and go around.

3 MR. ANVIK: Okay.

4 MR. CURTIS: Sir, this is Brian Curtis.  
5 Regarding the boilers -- I guess my question is: Are  
6 you responsible for the watch standers?

7 MR. ANVIK: The watch?

8 MR. CURTIS: The watch standers, yes?

9 MR. ANVIK: The watch standers?

10 MR. CURTIS: Yes.

11 MR. ANVIK: No.

12 MR. CURTIS: Generally, for the repair, the  
13 work that you have been doing in the boilers as of  
14 late, any problem reported from some of the other 2nds  
15 regarding the boilers that they've been having --

16 MR. ANVIK: That they have problem?

17 MR. CURTIS: Yes.

18 MR. ANVIK: With the boilers?

19 MR. CURTIS: Yes.

20 MR. ANVIK: Yeah, we've had some problems.  
21 We had some leaking, but we repair it if we have to  
22 repair it.

23 MR. CURTIS: The AMOS, you use the AMOS  
24 system now, is that correct?

25 MR. ANVIK: Yeah.

1 MR. CURTIS: For your maintenance?

2 MR. ANVIK: Yeah.

3 MR. CURTIS: And do you get some periodic  
4 printout as far as maintenance due and where you get  
5 that from?

6 MR. ANVIK: -- Fleseland down there in  
7 maintenance. He's a paper man. He gave the job for  
8 that, let me see, to Nicolaisen. He had the boiler, if  
9 there's some shaking or something, but normal  
10 maintenance -- the boiler for two thousand to --  
11 thousand others and if it's out, it's okay, it's time  
12 for cleaning and we the -- inspected and see how --  
13 them, they come to me and ask for people. I don't tell  
14 nobody to shut off the boiler and start cleaning. I  
15 don't do that.

16 MR. CURTIS: Regarding the maintenance that  
17 comes from AMOS, once the maintenance is performed on  
18 the AMOS sheet, who do you notify that the maintenance  
19 has been done?

20 MR. ANVIK: I don't understand exactly what  
21 you mean.

22 MR. CURTIS: You get a sheet of maintenance  
23 items from the AMOS systems from Fleseland?

24 MR. ANVIK: He don't give me that.

25 MR. CURTIS: He doesn't give you that?



1 MR. ANVIK: No. He don't give me that. He  
2 gave it to the guys that have the system.

3 MR. CURTIS: I have no other questions right  
4 now. Thank you.

5 MR. OLSEN: I have a few. Have you ever  
6 heard other engineers or have you become aware of  
7 persons discussing stress problems with the boilers  
8 like stress fractures?

9 MR. ANVIK: Yeah. I already talked about it  
10 because -- close down the boiler.

11 MR. OLSEN: Yeah.

12 MR. ANVIK: But it is normal.

13 MR. OLSEN: On here, it's normal?

14 MR. ANVIK: Yeah.

15 MR. OLSEN: Back in '83, I'm asking you away  
16 back, around that time or maybe a little bit earlier,  
17 did you ever hear people or become aware of people  
18 talking about recommendations to replace all the  
19 boilers because of stress failures?

20 MR. ANVIK: No.

21 MR. OLSEN: No?

22 MR. ANVIK: No. No.

23 MR. OLSEN: Okay. Over the last twenty or so  
24 years, there has been work in the boiler drums, is that  
25 correct? Would you know?

1                   MR. ANVIK: We have never been inside the  
2 boiler drum.

3                   MR. OLSEN: Okay.

4                   MR. ANVIK: On the drum -- we've been working  
5 with the diesel --

6                   MR. OLSEN: Yeah.

7                   MR. ANVIK: Inside the drum of the boilers?

8                   MR. OLSEN: Yeah.

9                   MR. ANVIK: Change gasket, leaking.

10                  MR. OLSEN: Yeah, but you said we have never,  
11 but have you seen outside contractors like Norse come  
12 in and --

13                  MR. ANVIK: No, no, no, no.

14                  MR. OLSEN: How about other contractors?

15                  MR. ANVIK: No. I don't remember ever seeing  
16 working inside the boiler.

17                  MR. OLSEN: In any other drums?

18                  MR. ANVIK: In what?

19                  MR. OLSEN: In any other drums? You had  
20 never seen work in any other drums?

21                  MR. ANVIK: None. We have been working with  
22 the plugs --

23                  MR. OLSEN: Yeah, with the plugs, but I mean  
24 welding --

25                  MR. ANVIK: No, no, no.

1 MR. OLSEN: -- specifically welding?

2 MR. ANVIK: Exactly, no. No, sir.

3 MR. OLSEN: How about when the ship was in  
4 shipyard, did they do welding in drums?

5 MR. ANVIK: I never see that. I never see  
6 that.

7 MR. OLSEN: You mentioned that the start and  
8 stopping kind of causes stress on the boiler. Was that  
9 a big concern or a little concern?

10 MR. ANVIK: There's no big concern. It's no  
11 big concern. The concern is the heating up, cooling  
12 down, heating up, cooling down.

13 MR. OLSEN: Uh-huh.

14 MR. ANVIK: Heating up, cooling down. The --  
15 will be falling to piece.

16 MR. OLSEN: Uh-huh.

17 MR. ANVIK: Where we have to repair.

18 MR. OLSEN: Yeah.

19 MR. ANVIK: But -- I don't know.

20 MR. OLSEN: Did you ever hear someone talk  
21 about the procedure leaving the fan on, venting the  
22 boiler all the way down when they shut it off? Did  
23 anyone say that's not a good idea, should we just shut  
24 the fan and bottle the boiler?

25 MR. ANVIK: You le the fan shut off?

1                   MR. OLSEN: No, leave the -- did anyone  
2 complain about leaving the fan on and venting down the  
3 boiler?

4                   MR. ANVIK: No, no, no. What I see they shut  
5 off the boiler, then they left the fan running and then  
6 stop.

7                   MR. OLSEN: And stop.

8                   MR. ANVIK: Let the -- ease it down, down,  
9 down.

10                  MR. OLSEN: With the vent open?

11                  MR. ANVIK: What?

12                  MR. OLSEN: With the boiler vent open?

13                  MR. ANVIK: Yeah.

14                  MR. OLSEN: Yeah.

15                  MR. ANVIK: Normally, the fan is running  
16 after you shut down, yes, or cooling down.

17                  MR. OLSEN: I guess I have to repeat myself  
18 again. You've never heard anyone talk about fractures  
19 or cracks --

20                  MR. ANVIK: No.

21                  MR. OLSEN: -- or problems in any of the  
22 drums on any of the boilers?

23                  MR. ANVIK: Not on the drums.

24                  MR. OLSEN: Okay. Where did you hear? On  
25 the tubes?

1 MR. ANVIK: On the tubes, we have -- they  
2 have been breaking and they have been changing on the  
3 boilers -- the boilers. They said boiler twenty-three.  
4 -- like in '99.

5 MR. OLSEN: The whole boiler?

6 MR. ANVIK: The boiler was leaking -- but you  
7 can check. The Chief has all the papers.

8 MR. OLSEN: Yeah.

9 MR. ANVIK: And you can check it.

10 MR. OLSEN: Yeah.

11 MR. ANVIK: But if I'm not wrong, I think it  
12 was '99, boiler twenty-three was leaking.

13 MR. OLSEN: From our looking at the boiler  
14 now, boiler twenty-three and the water wall drum, there  
15 appears to be a lot of welding along this seam. Do you  
16 have any idea of when that could have taken place?

17 MR. ANVIK: A lot of what?

18 MR. OLSEN: A lot of welding in --

19 MR. ANVIK: Where? Where?

20 MR. OLSEN: In the drum, the outboard --

21 MR. ROTH-ROFFY: The header.

22 MR. ANVIK: The header?

23 MR. OLSEN: Header, I'm sorry.

24 MR. ANVIK: The header?

25 MR. OLSEN: Yeah.

1 MR. ANVIK: What's happening with the header?

2 MR. OLSEN: Well, it looks like, and I'm not  
3 sure, but it looks like there's a lot of welding having  
4 taken place in certain areas and I'm just wondering if  
5 you can explain any of that at all.

6 MR. ANVIK: No. I never heard about it.

7 MR. OLSEN: Okay.

8 MR. ANVIK: Before the accident, I never  
9 heard about it. -- is it welding of the boiler?

10 MR. OLSEN: Inside.

11 MR. ANVIK: Inside?

12 MR. OLSEN: Yeah.

13 MR. ANVIK: This is new for me.

14 MR. OLSEN: Okay.

15 MR. ANVIK: This is absolutely new for me.

16 MR. OLSEN: And as 1st Engineer, you would  
17 know if somebody was welding in there?

18 MR. ANVIK: Yeah, yeah, yeah. Absolutely.

19 MR. OLSEN: Okay. Is Puchalski and Tokarz  
20 the best welders.

21 MR. ANVIK: Yeah, they are very good welders.

22 MR. OLSEN: Yeah.

23 MR. ANVIK: Very good welders.

24 MR. OLSEN: Okay. What kind of welding  
25 equipment do you have on board besides oxygen and

1 the settling? Do you have arc?

2 MR. ANVIK: Yeah.

3 MR. OLSEN: Do you have heliarc?

4 MR. ANVIK: Heliarc?

5 MR. OLSEN: Yeah, gas.

6 MR. ANVIK: Gas, yeah, yeah, yeah.

7 MR. OLSEN: Gas and --

8 MR. ANVIK: Yeah. Gas and station.

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

10 MR. ANVIK: Okay. Your welcome.

11 MR. OELSCHLEGEL: just a couple quick  
12 questions. Chris Oelschlegel, Coast Guard. Have you  
13 witnessed any boiler hdyros, say during the shipyard  
14 period or a dockside period?

15 MR. ANVIK: No.

16 MR. OELSCHLEGEL: No hydros at all?

17 MR. ANVIK: No.

18 MR. OELSCHLEGEL: Okay. Okay. And have you  
19 witnessed any repairs to the boilers other than the  
20 repairs that you already talked about, the tubes,  
21 during any shipyard periods or --

22 MR. ANVIK:

23 MR. OELSCHLEGEL: -- maintenance  
24 availabilities?

25 MR. ANVIK: No.

1 MR. OELSCHLEGEL: No boiler repairs at all,  
2 okay. That's all I have.

3 MR. ANVIK: They have retubed the boilers I  
4 see.

5 MR. OELSCHLEGEL: Okay.

6 MR. ANVIK: When they've been in drydock, we  
7 have enough people -- yeah, that I see. For sure.

8 MR. OELSCHLEGEL: Okay, but no hdyros?

9 MR. ANVIK: No, no, no.

10 MR. OELSCHLEGEL: By the Private  
11 Classification Society when they're on board?

12 MR. ANVIK: No, no, no.

13 MR. OELSCHLEGEL: Okay, that's all I have.  
14 Thank you.

15 MR. ROTH-ROFFY: Okay, the tape is about to  
16 run out. Could we take a five minute break, please?

17 (Whereupon, the parties recessed and the  
18 interview subsequently resumed.)

19 MR. ROTH-ROFFY: The time is about five  
20 minutes to five in the afternoon. Due to the late  
21 hour, I'm going to go ahead and ask the witness to come  
22 back, but before we do that, does anybody have anything  
23 to say about, you know, any questions or any comments?

24 MR. CMAR: Yes. This is Steve Cmar with NCL.  
25 Two things. First, I want to make clarification or



1 actually take issue with one question that was asked  
2 that, from the Coast Guard gave the impression to me  
3 that there was welding done on the drums and I don't  
4 think that's been established yet. That's been  
5 speculation and I wanted to clarify that on the record.  
6 Secondly, I have one question for Anvik and that is --  
7 the question was asked and I'm asking you the question  
8 again -- in putting the boilers on line and taking them  
9 off as it is done on the Norway, you said you had a  
10 concern and your concern was for what reason?

11 MR. ANVIK: My concern about that?

12 MR. CMAR: When it was asked previously about  
13 putting the boilers on line and taking them off, as it  
14 is done on the Norway, there was one concern you  
15 mentioned.

16 MR. ANVIK: I mentioned because the brick  
17 work I was talking about.

18 MR. CMAR: Yes, and was that your only  
19 concern?

20 MR. ANVIK: What?

21 MR. CMAR: Was that your only concern?

22 MR. ANVIK: Yeah. I never -- I think -- I  
23 feel safe.

24 MR. CMAR: Okay.

25 MR. ANVIK: I feel safe.

1 MR. CMAR: That's all I have.

2 MR. OLSEN: And I would just like a moment to  
3 clarify something that I said earlier in one of my  
4 questions and that was when I talked about the  
5 appearance of welding on the boiler. I did not say --  
6 I do not know if there has been welding on the boiler.  
7 I was just giving information as to the appearance of a  
8 weld.

9 MR. ROTH-ROFFY: Okay. So, it's about five  
10 o'clock. Sir, we have another meeting to go to and we  
11 would like to ask you to come back tomorrow morning.

12 MR. ANVIK: Okay.

13 MR. ROTH-ROFFY: So that will conclude our  
14 interview of today of the 1st Engineer, Mr. Anvik.  
15 Thank you very much, sir.

16 MR. ANVIK: Thank you.

17 (Whereupon, at 5:00 p.m., the interview of  
18 Mr. Anvik was adjourned until the following morning,  
19 June 3, 2003.)