

DEPARTMENT OF TRANSPORTATION
NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF MARINE SAFETY

In the Matter of:

MAJOR MARINE ACCIDENT,
DCA 03 MM 032

May 28, 2003

INTERVIEW OF:

IDAR HOFSETH

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

PRESENT:

TOM ROTH-ROFFY, NTSB
BRIAN CURTIS, NTSB
KEN OLSEN, USCG
RICHARD LEHRER, Attorney
STEVE CMAR, NCL
CHRIS OELSCHLEGEL, USCG
CARMONE DOWNEY, ATF
JOHN BUTCHKO, Miami Dade Homicide
NANCY MCATEE, NTSB

1 P R O C E E D I N G S

2
3 MR. ROTH-ROFFY: Good afternoon. It
4 is about 1:40 in the afternoon on the 28 of May 2003.

5 My name is Tom Roth-Roffy, and I am an
6 accident investigator with the National Transportation
7 Safety Board. I, and several other investigators from
8 the NTSB are here to the investigate the accident that
9 occurred aboard the Steamship Norway on May 25, 2003.
10 The reason we have asked you to come and talk to us is
11 because we believe that you may have some information
12 that may aid us in our investigation. And we
13 appreciate you coming down.

14 If you would like you can have a person
15 assist you, if you would like to confer with, with Mr.
16 Teissier, feel free to do at any time. Also if you
17 need to take a break, you know, use the restroom or get
18 some water, whatever, just let us know and we can do
19 that at any time. Okay.

20 So, let me just go around the room and ask
21 each person, for the record, to introduce themselves
22 and identify their affiliation.

23 MR. CURTIS: Brian Curtis, NTSB, Engineering
24 Accident Investigator.

25 MS. MCATEE: Nancy McAtee, NTSB, Fire
26 Explosion Specialist.

27 MR. DOWNEY: Carmone Downey, Bureau of
28 Alcohol, Tobacco, Firearms and Explosions

29 MR. LEHRER: Richard Lehrer, one of the
30 attorneys, representing some of the crew members during
31 this investigation. I have also been asked by Mr.
32 Hofseth to be his representative in this investigation
33 as well.

34 MR. BUTCHKO: I am John Butchko, with the
35 Miami Dade Police Department, Homicide Bureau.

36 MR. CMAR: Stephen Cmar, Norwegian Cruise
37 Line.

38 MR. ROTH-ROFFY: Okay. Sir, I guess we will
39 begin. I will start with some questions, first.

40 BY MR. ROTH-ROFFY:

41 Q Are you familiar with the Norway, have you
42 done any surveys aboard the Norway?

43 A Yes, I did the two last surveys. And the
44 last survey was the week, the Sunday, I think it is the
45 12th, the 11 or 12 to the 18.

46 Q That was the last one they did?

47 A Yes, I believe from the 11 to the 18.

48 Q And could you describe what you were
49 examining during that time?

50 A Well, we had the annual -- the passenger ship
51 safety -- and annual survey for all the machinery. The
52 passenger ship safety speaks for itself. The safety

1 equipment, the fire and life saving equipment. And the
2 annual survey for all the machinery, that consists of
3 inspection of the whole and machinery.
4 Q Okay. Regarding the whole and machinery
5 annual inspection, which machinery was inspected? Did
6 it include the boilers?
7 A Yes, but only for annual and that is only at
8 visual examination on the outside of the boilers.
9 Q What sort of things do you look for in the
10 visual examination?
11 A Well, that is for oil leaks, for steam leaks,
12 for -- I mean, the installation or, you know, but, the
13 things you would normally look for on the outside.
14 Q During that examination which boilers were in
15 operation, if you recall?
16 A Yeah, during the whole week, all four boilers
17 was in service and I was down there several times. I
18 can't recall how many.
19 Q So several times during that 11 through 18
20 you went down in the boiler room and --
21 A Yes, through the engine room, sir, but,
22 because part of the service was --
23 Q And did you see any irregularities on boiler
24 number 23 during your inspections?
25 A No.
26 Q Did you see any irregularities with any of
27 the boilers during your examination?
28 A No.
29 Q Did you make any notations on, for
30 outstanding requirements for any work on the boilers,
31 any problems?
32 A No.
33 Q And could you describe the other inspections
34 of machinery that you performed? Did you look at the
35 turbine generators, for example?
36 A Yes, we looked at the, I looked at the
37 generators, the diesel machinery, you know, any
38 machinery, but, in a short period like that, I mean, it
39 is nothing, I mean, out of normal procedure for annual
40 inspection. It is just outside look, you know, visual
41 inspection.
42 Q During your examination of the boilers was
43 the number 23 shutdown and opened at any time?
44 A Yeah, it was open and they stopped it, too,
45 but I was, I just briefly looked inside the boiler,
46 since it was open because it was not included in the
47 survey, everything looked normally.
48 Q So you say you briefly looked into the
49 firebox?
50 A Yeah.
51 Q On number 23?
52 A Yes, that is correct.

1 Q Did you physically enter into the firebox?
2 A No, only from the outside.
3 Q Okay. Please describe the other examinations
4 beyond the annual surveys that you recently did. What
5 other inspections of the boilers have you performed and
6 when were they done?
7 A I did the, I did complete surveys at this
8 time for two auxiliary boilers. One is 15 and the
9 other one is connected to the, to the incinerator.
10 Q Did you do any other complete surveys of any
11 of the machinery during this time?
12 A No, no.
13 Q Again, could you describe, I am sorry --
14 A We had some continuous surveys done and that
15 is every five year.
16 Q Okay. Do you recall which machinery was done
17 continuous survey?
18 A I can't recall all of the items, because
19 that is, you know, small items and they, this survey is
20 also done by the chief engineer because he is also
21 certified for this by his company. He just verifies
22 to see that it is okay.
23 Q I am sorry, could you go back and describe
24 those two boilers, those auxiliary boilers again? You
25 say one was a steam boiler, what was the function of
26 that boiler?
27 A The function of this steam boiler that is to
28 supply steam to, with much lower pressure and also so
29 you don't contaminate the -- see if anything should
30 happen, you know, you have forces for domestic water,
31 for cooking, for, you know, all kind of purposes. And
32 you can't use superheated steam or high pressure for
33 this purpose.
34 Q Okay. And the second one was connected to the
35 incinerator you said.
36 A That is the incinerator.
37 Q So, for -- and what was the steam used for
38 from that boiler?
39 A More or less for the same purpose as, it is
40 an addition on that. They also use it for producing
41 water, so it supplies steam to their operators.
42 Q Okay. And when was the last time you did a
43 thorough survey of the main boilers on the Norway?
44 A Well, I don't have that record, but, we did
45 two boilers, this one was done in, the three was done
46 in July of last year, because I kept that.
47 Q And did you actually, were you the surveyor
48 that did the inspection of the boiler number 23 in
49 July?
50 A Yeah.
51 Q And what is that examination called, is that
52 a special examination?

1 A No, that is called complete boiler survey.
2 That is every two and a half years.
3 Q And could you describe what is examined
4 during this complete boiler survey every two and a half
5 years?
6 A One we check the boiler, let's say, you know,
7 as far as you can do and we find any irregularities,
8 you will, of course, you know, do more than what is
9 required, you know, for a normal survey.
10 Q Okay. Could you describe in more detail the
11 components of the boiler that you inspect during this
12 complete boiler survey?
13 A Yeah, you inspect the tubing, you inspect the
14 main box, you inspect the drums, as far as you can get
15 in and check them, because they are very narrow. And,
16 of course, all the tubing, the combustion chamber, and
17 whatever.
18 Q Do you inspect the burner registers and the
19 burner barrel assemblies?
20 A The burners?
21 Q Yeah, the burners?
22 A Yeah, not in detail. You see that they are
23 working when you fire up the boiler.
24 Q Do you enter into the firebox or furnace to
25 examine the refractory?
26 A Yeah.
27 Q What about the boiler automation systems,
28 what sort of examination do you do on that?
29 A Well, you see that the functions are done,
30 what is required for.
31 Q I am sorry, could you say that again?
32 A Yes, you check for the functions, that they
33 are functioning correctly.
34 Q Okay. And which functions do you check? Do
35 you have some kind of a checklist that you use to --
36 A We have a checklist, yes.
37 Q And is that, that checklist, is that specific
38 to the Norway?
39 A No, it is -- checklist.
40 Q Could it be possible to get a copy of that
41 checklist that was used to perform that automation
42 examination?
43 MR. TEISSIER: The report of this --
44 MR. ROTH-ROFFY: Oh, okay. Sorry, you are
45 going to have to identify yourself for the record.
46 MR. TEISSIER: I am sorry. I am Francois
47 Teissier, I am the regional manager for the operator.
48 MR. ROTH-ROFFY: Okay.
49 MR. TEISSIER: And I was just saying that all
50 the reports of inspections on the Norway, are sent to
51 Norwegian Cruise Line. They are kept onboard ship,
52 and I think they are accessible for review.

1 MR. ROTH-ROFFY: Okay. We certainly would want
2 to get copies of that from NCL, the checklist that was
3 used to examine the automation system.
4 BY MR. ROTH-ROFFY:
5 Q And in July 2002, when you examined the
6 automation system, do you recall what the, if there was
7 any problems with that system?
8 A No problem.
9 Q Are you familiar with the modifications to
10 the automation system that were done by Siemens in the
11 recent past?
12 A Well, I believe that was done, when they
13 brought the ship around 1980 or something like that,
14 but I don't know exactly what was done before or
15 anything, because I was not involved with that vessel
16 at all before 2002. So, I don't know what happened
17 before.
18 Q Okay. We have heard from, I believe, the
19 chief engineer, that they had a Siemens' rep onboard a
20 few months ago, that was changing ops and components
21 and upgrading the system. Are you familiar with that
22 work that was done?
23 A No. Not that I can recall.
24 Q Would that work normally require
25 classification society approval if there is a
26 modification to components in the automation system?
27 A It depends what it is. I can't say anything,
28 because I don't know what it is.
29 Q Are you aware of any modifications to the
30 automation system that have been done since 1980, that
31 the Bureau of Veritas has approved?
32 A Not to my knowledge.
33 MR. ROTH-ROFFY: Certainly, go ahead.
34 (Pause.)
35 MR. ROTH-ROFFY: I am sorry, go ahead and
36 pause the tape for a second.
37 (Off the record.)
38 MR. ROTH-ROFFY: All right, it is about two
39 minutes to two and we took a brief break there.
40 BY MR. ROTH-ROFFY:
41 Q How long does it normally take you to do the
42 examination of the automation system and who would
43 normally perform that or demonstrate that to you?
44 A That would be normally the staff chief or
45 first engineer or the chief engineer.
46 Q And how long does it take you to go through
47 all of the safety features of the boiler?
48 A Well, I can't tell you exact time, it all
49 depends if everything is working, of course, if not,
50 then it will take longer.
51 Q Could you do in an hour or a day or, it just
52 varies, highly varies?

1 A No, if the automation works, it is done in an
2 hour.
3 Q Do you recall the last time that you did the
4 automation examination if there were any problems that
5 occurred that were subsequently corrected?
6 A No, I cannot remember any problems.
7 Q Okay. Does the maker or the manufacturer of
8 the automation system assist with the testing of it for
9 your examination?
10 A No.
11 Q So, it is ship's force only that demonstrates
12 it to you?
13 A Yes. If it has been under repairs,
14 question, I will call them in, but, it is only the
15 crew.
16 Q Do you, as part of the automation system
17 check, do you check the low water alarms?
18 A Yes.
19 Q For the drum level.
20 A Yes.
21 Q And do you also test the low, low level that
22 shuts off the boiler?
23 A Yes.
24 Q Do you examine the flame scanners and the
25 fuel cutoff valves?
26 A Yes, whatever equipment they have on the
27 boiler, it is checked, has to do with the automation.
28 The automation from one boiler to another, not for this
29 year, but normally.
30 Q Sure. On this ship do you recall how you
31 verify the operation of the flame scanners?
32 A I can't recall exactly.
33 Q Do you recall ever having tested the flame
34 scanners?
35 A No, I can't recall the details.
36 Q Do you recall ever testing the ignitors, the
37 electronic retractable ignitors for the burner light
38 off?
39 A Yes.
40 Q And could you describe how you would test
41 those?
42 A No, you see if they ignite or, you know, the
43 gap, whatever you have one, the ignitor.
44 Q Would you --
45 A Or if it miss fires or whatever, you would go
46 there.
47 Q And how would the crew demonstrate that to
48 you? Would they remove the ignitor from the assembly
49 and put it on the deck and fire it or how would they do
50 it usually on this ship?
51 A Yeah, they would do in the boiler, if it is
52 having problem, if functions, if it ignite, you --

1 Q Would you, when you test the ignitor, would
2 you have other burners lit off at the same time or
3 would you do one by one to verify the operation of the
4 ignitor?
5 A Yeah. I can't recall exactly what kind of
6 equipment they had for this, so, I can't comment on it.
7 Q Does your examination involve lifting of the
8 safety valves?
9 A Yes.
10 Q And are they removed and lifted with water or
11 do you test them in place?
12 A We test them in place, with steam.
13 Q Do you recall if the crew of the Norway has
14 ever called you in to, to examine a particular problem
15 with the boilers on the vessel?
16 A No.
17 Q You mentioned the Chief Engineer is certified
18 to inspect on a five year continuous survey, does that,
19 does that also include the boilers?
20 A Not the boiler, itself, but all the, the
21 auxiliary machinery, like the pumps, heaters, fans.
22 Q But the boilers themselves must be examined
23 by BV survey?
24 A That is correct.
25 Q Do you recall the condition of boiler 23
26 refractory inside the furnace when you examined it in
27 July '02?
28 A Yeah, I think they did some small repairs. I
29 can't recall the details, but, you know, whatever, was
30 a problem, was taken care of.
31 Q Do you maintain a separate workbook of your
32 examination notes and observations apart from what you
33 present to the ship?
34 A No, I bring my computer aboard, so I do it
35 right there and more or less data came to the computer.
36 Q So you don't have like a separate logbook
37 there --
38 A Not a notebook, but I write from that and
39 directly do into the computer. Set my computer open
40 when I get onboard.
41 Q Does the examination of the boilers include a
42 hydro testing or disassembly of the burner assemblies,
43 the barrels?
44 A The burners?
45 Q Yes.
46 A No. -- the checklist and that is basically,
47 if there is any problem, of course, then we will test
48 them.
49 Q Does your examination of the boiler
50 automation system include a verification that the
51 alarms are sounding in all locations?
52 A Yeah, in the control room and down in the

1 engine room.
2 MR. ROTH-ROFFY: Okay. I am going to go ahead
3 and ask Brian Curtis to ask some questions.
4 BY MR. CURTIS:
5 Q Okay. Brian Curtis.
6 Regarding that last question, the alarms in
7 the engine room, if any of them weren't sounding, they
8 would be in your report, they would have been tested in
9 the last complete survey? Would that have been the
10 last time the alarm was tested?
11 A Alarm is tested on the annual survey, anyway,
12 I mean, not all the boiler alarms, but, the alarms in
13 general.
14 Q Okay. Regarding the boilers generally, are
15 there any abnormalities in the past, any of the
16 boilers, that seem to be a recurring problems or in the
17 past surveys?
18 A Not to my knowledge.
19 Q When you say the chief engineer is certified
20 to do surveys, if he were to do a survey on a piece of
21 auxiliary equipment, do you review those surveys when
22 you board the vessel or do you review --
23 A We verify the records, and normally they will
24 give us data, depending what the item is.
25 Q Okay. Is there any spot checks on that or
26 just, they usually just enter into the record?
27 A They, they will normally inform of the
28 condition, and if there is any question, they will
29 always ask it.
30 Q Is the safety valve pressure test a part of
31 the two and a half year complete survey?
32 A That is part of two and a half year, yes.
33 Q And what is the tester that tests pressure
34 that it would be tested at?
35 A Oh, I can't remember the exact number. But,
36 you have, you have one for the -- one for the drum.
37 They will be tested, they will be checked through the
38 opening pressure. I can't remember exactly what that
39 is.
40 Q And are they ever, is there any requirement
41 for say every other survey, whatever, for them to be
42 taken off of the drum and tested independently?
43 A Only every two and a half years.
44 Q And it is always in place?
45 A Yes.
46 Q Never required to be pulled off and tested.
47 A If there is problem, you would have to do it.
48 Q And back to the testing of the scanners, so
49 there are no specific requirements, parameters for
50 testing the scanners, just, just the checklist that you
51 have.
52 A Yes.

1 Q And would that be considered auxiliary
2 equipment that the chief could test the scanners, or is
3 that part, considered part of the boiler?
4 A I am sure that they test themselves, but,
5 that is part of the boiler. So, that they have to be
6 tested by our survey, every two and a half years.
7 Q Okay. So, all of that combustion control
8 equipment would be considered part of the boiler and
9 not auxiliary equipment?
10 A Exactly.
11 MR. CURTIS: That is all I have right now.
12 MR. OLSON: Ken Olson, U.S. Coast Guard.
13 BY MR. OLSON
14 Q I realize that you may have talked about this
15 earlier. Can you describe the combustion control test
16 procedures, what has been done in the past, what
17 vessel? Detail.
18 A I have no details of that.
19 Q Okay. When, how long has BV been the class
20 society for the vessel, is it a long time or recent?
21 A No, since Day 1.
22 Q Since Day 1. Okay.
23 A Yes.
24 Q So, BV would have to approve the combustion,
25 the automation test procedures, is that correct? For
26 the combustion control?
27 A What do you mean?
28 Q I understand that there is an established
29 procedure to go down there, that you can hand to a
30 technician, and follow through question, control, do an
31 adequate test, so, I am curious as if BV was, had
32 approved that test procedure or what their involvement
33 in that test procedure. How do we know that such a
34 procedure was adequate? Do you know anything about the
35 approval of the test procedure?
36 A No.
37 Q Okay. On U.S. ships they have the specific
38 document that details, step by step, how they go
39 through the combustion control.
40 A We have a checklist, we check off whatever --
41 Q Okay.
42 A -- BV requires to do.
43 Q Okay. Does it go into the step by step detail
44 or is it just observe the combustion control system?
45 A Yeah, that will be correct.
46 Q Okay. It is more general than specific.
47 A Yes.
48 Q Okay. You kind of touched on this with Tom,
49 when was the last time you may have observed the
50 internal furnaces of any of the boilers? Have you been
51 inside them recently?
52 A Yeah, I was in telling them that they had, on

1 the auxiliary boiler, for the, for the incinerator, I
2 had the complete survey.

3 Q Okay. And that was recent?

4 A That was during this inspection.

5 Q How about --

6 A The 11 through the 18.

7 Q Okay. How about within the last three years,
8 have you observed the internals of the boilers, the
9 main boilers?

10 A Yeah, and the boiler number 23.

11 Q Oh, you have. Okay.

12 A Yes. That was in July of last year.

13 Q Okay.

14 A I have already answered that.

15 Q All right, I am sorry.

16 Where you involved with any assessments or
17 evaluations that may have taken place when the safety
18 certificate was issued?

19 A This --

20 Q Yes.

21 A Yes, I issued that.

22 Q You issued that.

23 A Yes.

24 Q So you did some of the surveys at that time.
25 Okay.

26 In your involvement with the vessel, has
27 there been many non-conformities reported to you
28 through the safety management system?

29 A Well, I am not involved in the safety
30 management system and no non-conformity have been
31 reported to me.

32 Q No non-conformities.

33 A No.

34 Q Would you have been, if they had been
35 identified or is the class in the loop with that?

36 A No, the ISM is done with the BV.

37 Q It is --

38 A Done with the BV.

39 Q Oh, okay. All right. I had thought that it
40 was the -- Okay.

41 But, the certificate was issued by BV, is
42 that correct?

43 A The passenger ship safety.

44 Q Okay. I am sorry, I am talking about the ISM
45 certificate.

46 A That is with BV.

47 Q Okay. I have got it now. All right. I had it
48 messed up then.

49 Okay. And you said a copy of that check was
50 that you might use to do some of your inspections, that
51 is available on the vessel.

52 A Well, always send them to the vessel. They

1 are all sent to the company as opposed to sending to
2 the --
3 Q Okay. But, your organization might have a
4 copy of an example, if we needed one, is that correct?
5 A Yes.
6 MR. OLSON: Okay. That is all I have for
7 now. Thank you.
8 MR. ROTH-ROFFY: Chris?
9 BY MR. OELSCHLEGEL:
10 Q I only had one question that goes to,
11 pertains to the automation system, again. I am with
12 the Coast Guard.
13 A Yes.
14 Q Has there been any, is the original
15 automation control equipment on the boilers now or has
16 there been any retrofitted automation control systems
17 over the years, that you aware of?
18 A Yeah, I didn't get involved with this vessel
19 before, last year, but, my understanding is that they
20 changed the boiler control in 1980 when they brought
21 the ship.
22 Q In 1980.
23 A Yes.
24 MR. OELSCHLEGEL: Okay. All right, that is all
25 I have.
26 MR. ROTH-ROFFY: Chris, could you identify
27 yourself for the record.
28 MR. OELSCHLEGEL: Oh, I am sorry, yes, Chris
29 Oelschlegel. I am with the Coast Guard. I am a Coast
30 Guard traveling inspector, Coast Guard Headquarters in
31 Washington.
32 MR. DOWNEY: I have one quick question.
33 Were there any components that --
34 MR. ROTH-ROFFY: Identify yourself, please.
35 MR. DOWNEY: Carmone Downey, Alcohol, Tobacco,
36 Firearms and Explosives.
37 BY MR. DOWNEY:
38 Q Were there any components that needed to be
39 routinely changed just because of the number of service
40 hours that, in the boilers, that, just because of the
41 number of hours that they ran, even though on visual
42 inspection they may seem fine, but because they had a
43 certain amount of hours on them, they needed to be
44 changed out because of the safety factor?
45 A Not to my, my knowledge. The normal is that
46 everything function, you don't change it because --, to
47 my knowledge.
48 MR. BUTCHKO: John Butchko, Miami Dade
49 Homicide.
50 BY MR. BUTCHKO:
51 Q Just two questions I have.
52 When you are doing your inspections, you also

1 speak to the crew members and ask them questions about
2 what is going on in any particular area of the ship,
3 for example, will people working in the boilers, you
4 also interview those people, ask if there is problems?

5 A They will normally tell me if there is any
6 problem, any problem. I don't specific ask.

7 Q Okay. Do you recall if any crew members
8 working in the area of the boilers and especially
9 boiler number 23, where you said you saw the inside of
10 that area, mentioning any problem, any ongoing
11 problems, any concerns with those boilers?

12 A No.

13 MR. BUTCHKO: One second.

14 (Pause.)

15 BY MR. BUTCHKO:

16 Q If you should find a problem during your
17 inspection that is documented, correct?

18 A Yes.

19 Q And if you do find that problem, does the
20 ship have to conform with that problem, to fix it and
21 do you reinspect that at a specific time? Do they have
22 time to fix it or a deadline?

23 A Yes, it depends on the service, when I was
24 aboard last week, I had a long list of items, most of
25 it was corrected when I was aboard. And the older one
26 was put into the -- indicator, I think it was eight
27 items, I gave them, you know, from, from three months
28 to a year to fix in dry dock. That was on the --

29 Q I see. And now do you follow it up with an
30 inspection, in addition to them telling you they fixed
31 the problem, do you follow that up with an inspection
32 to make sure that it has been done.

33 A That is correct, yes, that is correct.

34 MR. DOWNEY: I have no further questions.

35 MR. CMAR: This is Stephen Cmar, Norwegian
36 Cruise Line.

37 BY MR. CMAR:

38 Q I just ask this because I don't recall you
39 answering it. During the last complete survey of the
40 boiler, I assume a hydro test was conducted.

41 A Yes, if I don't remember wrong, I am quite
42 sure. That would be in the record.

43 MR. TEISSIER: I can confirm it as being done.

44 MR. CMAR: Okay. At the last complete.

45 BY MR. CMAR:

46 Q And I guess, I would ask were there any
47 problems with the hydro test?

48 A No.

49 MR. CMAR: Okay. That is all I have.

50 MR. ROTH-ROFFY: Okay. We will go around one
51 more time, at least one more time, I should say.

52 BY MR. ROTH-ROFFY:

1 Q Regarding the chief engineer being certified
2 to inspect on behalf of BV. What is required for BV
3 to give the chief engineer that certificate?
4 A Well, I can't, I don't have the complete
5 list, but, it is through the company he worked for.
6 So, he had to work for the company, I think it is three
7 years. I can't --
8 MR. TEISSIER: Yes, the chief has to be a
9 permanent employee for a number of years. He has to,
10 showing his experience and training and all.
11 BY MR. ROTH-ROFFY:
12 Q Okay. So the certificate is actually issued
13 by Norwegian Cruise Lines.
14 MR. TEISSIER: No, the employer applied, not
15 the chief, himself. The employer applied to the
16 operator.
17 MR. ROTH-ROFFY: Okay. Then the Bureau of
18 Veritas would issue a certificate.
19 MR. TEISSIER: To the chief. To NCL, chief
20 engineer, so he is authorized to do by the rules.
21 MR. ROTH-ROFFY: Okay. Are there any training
22 requirements, specific training requirements that the
23 chief engineer has to meet in order to be certified?
24 MR. TEISSIER: I should look in the notes, I
25 don't know by heart.
26 MR. ROTH-ROFFY: Or is it just --
27 MR. TEISSIER: -- he has a first class
28 certificate.
29 MR. ROTH-ROFFY: Or is it just a matter of
30 just having the chief's license and having worked for
31 three years, is that normally all they need?
32 MR. TEISSIER: I would say it is part, I don't
33 know there might be more, I don't know exactly by heart
34 the conditions of the rules, by heart.
35 MR. ROTH-ROFFY: Is there any chance that BV
36 may have a copy of the current rules that they could
37 provide to the investigation team?
38 MR. TEISSIER: Yes.
39 MR. ROTH-ROFFY: I appreciate that. That
40 would be fabulous, yes.
41 MR. TEISSIER: You even have the complete set
42 of rules on the Internet, if you want to go --
43 MR. ROTH-ROFFY: Okay. But, if you could bring
44 a CD, we would appreciate it.
45 MR. TEISSIER: Yes.
46 MR. ROTH-ROFFY: That is BV.org.
47 MR. TEISSIER: No, it is www.veristar.com.
48 MR. ROTH-ROFFY: Okay.
49 MR. TEISSIER: And there is -- but, which do I
50 send the CD Rom to.
51 MR. ROTH-ROFFY: Either if you could bring
52 here, we will be here for a few days, or you can mail

1 it to the address on my business card.
2 BY MR. ROTH-ROFFY:
3 Q Regarding the boiler inspections, are there
4 other inspections more detailed than the two and a half
5 year complete inspection?
6 A No.
7 Q For example, a five or a ten year inspection
8 of, which would go into great depth or detail?
9 A No, it is, if anything is found wrong, of
10 course, then the surveyor will have to request for that
11 check.
12 Q Who would request that check?
13 A The surveyor would request it.
14 Q Okay. If he sees a problem --
15 A If he sees a crack in a drum or something
16 like that, that will be, of course, inspected.
17 MR. ROTH-ROFFY: Okay. So, there is no routine
18 requirement to do, for example, a dye penetrative test
19 or x-ray or anything?
20 A No.
21 MR. ROTH-ROFFY: Okay.
22 MR. TEISSIER: Rules say that no testing may
23 be required by the surveyor, when it is necessary to do
24 it, but it is not systematically.
25 BY MR. ROTH-ROFFY:
26 Q Do you recall ever having requested non
27 destructive testing on any of the boilers on the
28 Norway?
29 A No. Could have been as I said before, the
30 two and a half year, but I don't know what was done
31 before.
32 Q So, you have been associated with the S.S.
33 Norway for, you said the past two.
34 A Yeah, less than two years. I have done two
35 annuals only. I did the one last year, and I did it
36 this year.
37 Q And do you happen to know who was the
38 previous inspector that worked on the Norway?
39 MR. TEISSIER: Roy McBride.
40 MR. ROTH-ROFFY: I am sorry?
41 MR. TEISSIER: Roy McBride, M.C.
42 (Pause.)
43 MR. ROTH-ROFFY: And is Mr. McBride currently
44 employed in Miami or --
45 MR. TEISSIER: In --
46 MR. ROTH-ROFFY: And he currently works for BV
47 as well?
48 MR. TEISSIER: Yes, he does.
49 BY MR. ROTH-ROFFY:
50 Q During the annual survey that you conducted
51 11 through 18 May, were you also doing other vessels at
52 that same time or were you strictly working --

1 A I sailed with the ship from the 11 to the 18,
2 from Sunday to Sunday.
3 Q Okay.
4 A That is why I saw all the boilers in use.
5 Q What is the normal time it takes to do an
6 annual survey? Do you normally sail with the vessel to
7 do your annual survey?
8 A Yeah.
9 Q And it normally takes seven days or so?
10 A Seven days, yeah.
11 MR. TEISSIER: The passenger ship safety.
12 MR. HOFSETH: Yes, the passenger ship survey
13 is included.
14 MR. ROTH-ROFFY: Okay.
15 BY MR. ROTH-ROFFY:
16 Q So, about how much time is spent on passenger
17 ship survey and how much time is spent on the annual
18 machinery and whole, if you can estimate?
19 A Well, I spent about 10, 11 hours every day,
20 and say that it is probably, it is all -- you know, so,
21 if you say 50/50, it is probably correct.
22 Q Okay.
23 A For the 50/50.
24 MR. ROTH-ROFFY: Okay. This tape is about to
25 run out, so I am going to stop it and switch.
26 (Change of tape.)
27 MR. ROTH-ROFFY: Okay. I just turned over the
28 tape. This is side two of our interview with Mr. Idar
29 Hofseth of Bureau of Veritas.
30 That is about all the questions I have. I
31 am going to go ahead and pass over to Brian Curtis.
32 BY MR. CURTIS:
33 Q All right, just briefly back to the pressure
34 test of the safety valves. I realize you don't have
35 the number in your head, but is there a percentage of
36 the maximum allowable working pressure of the boiler
37 that it is suppose to be tested at, 150 percent, 125
38 percent or --
39 A No, it is slightly over. We don't have a
40 fixed, it is slightly over the, the working pressure.
41 Q Okay. So, there is no fixed regulation for
42 that pressure wise.
43 A The maximum, but, I can't remember what it
44 is, but to do it just slightly over the working
45 pressure.
46 Q Okay. I realize you said before regarding the
47 ISM that DBV takes care of all that, but, just to touch
48 on that briefly. You have no requirement to report any
49 deficiencies to the DBV if they would arise. It is
50 done totally, it is the company's responsibility,
51 correct?
52 A Yes, paperwise. It is their responsibility.

1 If there is anything wrong, they will report as class,
2 I mean, for the ship. And we have had a very good
3 cooperation with the NCL in this respect. If they
4 found anything, they contacted us immediately.

5 MR. CURTIS: That is all I have. Thank you.
6 Sorry?

7 MR. TEISSIER: I want to comment on the
8 exchange of information between these, one doing ISM,
9 one doing class, kind of exchange procedure. But, not
10 for every deficiency. I mean, either the surveyor
11 doing ISM considers the ship is really a disaster, he
12 has to inform the class society during the class. And
13 vice versus, if the class society is doing the class
14 surveys, has -- pictures that ISM is working here, to
15 inform the other class, too. But, I think only for
16 extreme conditions, not for you have to change a plate,
17 you have to change a pressure valve. But, in case
18 something is really wrong, there is an exchange between
19 the two classes.

20 MR. CURTIS: Okay. Thank you. That is all I
21 have.

22 Are there any, I guess this is more towards
23 you, are there any documents that detail
24 responsibilities of BV to Norwegian Cruise Lines, and
25 do you have like a contract that you sign that details
26 your levels of inspection and just your general
27 responsibilities?

28 MR. TEISSIER: -- written rules.

29 MR. OLSON: It is within the rules.

30 MR. TEISSIER: Within the rules. The rules --
31 describes all of the surveys, which have to be done to
32 maintain class. And the contract is only a request for
33 classification signed by NCL, which, of course, refers
34 to the rules, and includes the general conditions of
35 class, but, there is no -- but, technical context of
36 all duties of inspection.

37 MR. OLSON: Okay. All right. And that is part,
38 that is cooperated in the rules.

39 How about, I didn't hear your background, but
40 I presume that you are a former engineer or mariner, is
41 that correct?

42 MR. HOFSETH: That is correct.

43 MR. OLSON: That is correct.

44 I am interested in what BV provides to their
45 personnel in terms of guidance material, other than the
46 rules? What kind of resources does he have to, to
47 brush up or to learn more about a particular system
48 when it is necessary?

49 MR. TEISSIER: We have in, integral training
50 sessions. In -- we have a set of CD, 25 now, CD roms,
51 CD rom covers one aspect of the surveys, boilers,
52 special and self teaching by the survey. He has

1 example, there is a quiz, there are questions, there
2 are films about -- This is a training tool. And is
3 what we call IS, instructions to surveyors, which is
4 set of instruction for each survey -- paper, paper,
5 with detail for each type of survey, what is important
6 to look at, you know, what are the, the way the
7 inspection should be conducted, what should be tested,
8 what should be measured. So this is document, which is
9 very good to all surveyors.

10 MR. OLSON: Surveyors, I mean, that might be
11 something interesting, just the guidance in reference
12 to the boilers. I mean, is that something that we
13 could obtain, perhaps?

14 MR. TEISSIER: Yes.

15 MR. OLSON: Now, the guidance available to
16 boiler surveyors, including the combustion control
17 system.

18 MR. TEISSIER: I understand.

19 MR. OLSON: I would like to have a set of
20 those CD's for my own self.

21 MR. TEISSIER: I am sure the Coast Guard has a
22 set.

23 MR. OLSON: I don't know about that. I don't
24 know. That would be interesting.

25 MR. TEISSIER: Okay. Where should I supply
26 this?

27 MR. OLSON: Well, this would be Tom for his
28 evaluation.

29 MR. TEISSIER: Okay.

30 MR. OLSON: And that is all my questions.
31 Thank you very much.

32 MR. TEISSIER: You are welcome.

33 MR. DOWNEY: I do have one more question.
34 Carmone Downey, ATF.
35 The surveyors from the crew, the crew
36 engineer, when he is certified, is there ever any
37 oversight on him? Is there like, if he does the
38 survey, himself, does every few years BV has to come in
39 and actually do a survey to ensure that, you know, the
40 crew line's engineer is doing it properly?

41 MR. HOFSETH: Yes, we verify the records. The
42 records of the maintenance and all of this. That is
43 one of the things. The whole thing is that every --
44 the timing on what kind of machinery, it is important
45 to --

46 MR. BUTCHKO: John Butchko, Miami Dade
47 Homicide.

48 I have one question.

49 As far as your inspections, you also inspect
50 the documents relating to certain, certain types of
51 equipment onboard, in other words, like the boilers,
52 you also look at documents relating to those

1 instruments, during your inspections?
2 MR. HOFSETH: I don't know what the documents
3 you talk about. The maintenance records, I always
4 check.
5 MR. BUTCHKO: Okay. That is probably what I am
6 referring to, the maintenance records. Do you recall
7 anything regarding these boilers being documented by
8 the ship on any of these, this maintenance record that
9 you surveyed, any previous problems that maybe the
10 cruise line told you, oh, we took care of that problem,
11 it was a problem a week ago, a month ago, but we took
12 care of it? Do you recall anything documented by the
13 cruise line like that, referring to the boilers?
14 MR. HOFSETH: No.
15 MR. BUTCHKO: I have no further questions.
16 MR. ROTH-ROFFY: Just a couple more questions.
17 Does Bureau of Veritas have a program wherein
18 if the ship has a computer based automate maintenance
19 program they are allowed to demonstrate that they have
20 been properly maintaining the equipment and therefore,
21 not subject the equipment to open inspect or
22 continuous survey?
23 MR. TEISSIER: Yes, there is a specific
24 classification for that, which is called the --
25 machinery. It goes further the planned maintenance.
26 It is based -- and adaptation to plan maintenance to
27 the -- It is an optional --
28 MR. ROTH-ROFFY: Does the S.S. Norway have
29 this notation?
30 MR. TEISSIER: No, it does not.
31 MR. ROTH-ROFFY: So, therefore, all equipment
32 must be opened and inspected every five years. Or what
33 are the requirements for the continuous survey?
34 MR. TEISSIER: The class requirement for
35 that, the basic class requirement would apply to the
36 Norway.
37 MR. ROTH-ROFFY: But, what is that, what is
38 the continuous survey requirement for every five years?
39 MR. TEISSIER: It is five years, maybe some
40 times it might be more, if it is a manufacturer
41 warranty is so many hours, but, basically the general
42 rule is five years, yes.
43 MR. ROTH-ROFFY: What is required every five
44 years for the equipment onboard? Is it an open, what
45 type of inspection is it, a dismantling type of
46 inspection or what, what is actually required?
47 MR. HOFSETH: The idea -- Very often a --
48 recommend, let's say a gear on pump, this is just an
49 example, a gear on a pump, normally, I would say never,
50 but -- need to be overhauled, and the problem is if
51 someone open it up, they might damage it. So, in case
52 like that, you have to use commonsense and, and also

1 follow the instruction by the manufacturer. That is
2 the most important thing. The manufacturer will say
3 that you have to open it up after three years, you open
4 it up after three years, even if you don't need to, and
5 if you have a -- you have to pull the piece after one
6 year, you do it after one year. You have to follow
7 the, the, the manufacturer's instructions.

8 MR. ROTH-ROFFY: So, how do you verify that
9 the ship's crew is, is following the manufacturer's
10 recommendations, is that by the chief engineer
11 certifying that he has, has complied with it or do you
12 inspect the AMOSS maintenance records for, for example,
13 as you say the piston, every so many hours.

14 MR. HOFSETH: Yes. Well, they will normally
15 supply us with the, without asking, with the
16 maintenance record. If we ask for something,
17 particular, we will get it right away.

18 MR. ROTH-ROFFY: So, this five year continuous
19 survey really, what does that really mean? Does it
20 mean every five years you look at every piece of
21 equipment and see that it has been properly maintained
22 during the previous five years or because I am not sure
23 I understand it. Maybe, maybe it is just me, but could
24 you explain again why there is such a thing as a five
25 year continuous survey, if so much of the equipment is
26 periodically maintained anyway during the five period?

27 MR. HOFSETH: You can say in general, you
28 know, the class check or every five year, and you have
29 to have some sort of guidelines, you know, you can't
30 put everything 10 year or three years, so you have to
31 have a guideline, and that is every five year. It used
32 to be four years. And this is the same thing for all
33 the classes. They have the same thing. It is not
34 only Bureau of Veritas, it is DME, it is ABS.

35 MR. ROTH-ROFFY: Right.

36 (Pause.)

37 MR. ROTH-ROFFY: Okay. That is all I have.

38 MR. CURTIS: I just have one quick question.
39 Brian Curtis.

40 So regarding the AMOSS system, it is your
41 understanding then that in the AMOSS system, that would
42 house the preventive maintenance done as well as the
43 unscheduled maintenance done on the vessel? All
44 maintenance on the vessel?

45 MR. HOFSETH: Yes.

46 MR. CURTIS: Okay. That is all I have.

47 MR. OLSON: One last question. Does BV have
48 any involvement with determining the manning compliment
49 of the ship, you know, particularly for the marine
50 crew?

51 MR. HOFSETH: Determining what?

52 MR. OLSON: The manning requirements or in

1 terms of how many people or skills involved,
2 certifications?
3 MR. HOFSETH: It is not covered in the
4 classification.
5 MR. OLSON: It is not covered in there. Okay.
6 Well, how is the manning determined then for an engine
7 room and what are the controls to that?
8 MR. HOFSETH: I don't know who determines the
9 manning of the engine room.
10 MR. OLSON: All right. Thank you.
11 UNIDENTIFIED SPEAKER: Again, clarify
12 something I said yesterday, AMOSS only doesn't include
13 unscheduled maintenance. It is just, it is preventive
14 system.
15 MR. ROTH-ROFFY: Okay. So, I would like to
16 actually follow up on that a little bit.
17 BY MR. ROTH-ROFFY:
18 Q If AMOSS does not include unscheduled
19 repairs, for example, a piece of equipment breaks down
20 and the crew has to go and repair it, how do you, are
21 you notified of that when you do your continuous survey
22 that the equipment suffered a casualty or some sort of
23 repair that they had to go in and fix it?
24 A They -- If anything happen and they have to
25 renew something that will be, to the AMOSS. And that
26 is the way they do it. Say you have to take something,
27 if you have a breakdown on the pump, that pump part
28 will be put in the AMOSS that they have, have used it.
29 Q Okay. Well, that is something we will just
30 have to investigate a little bit further. But, as far
31 as you know there is no separate paper document, like a
32 machinery history that you review as part of your
33 survey, everything is computer, right? You don't have
34 a separate logbook that would have repairs and
35 breakdowns.
36 A No.
37 MR. TEISSIER: When anything is done on the
38 ship, which affect the class, the failure of the
39 equipment covered by the class or -- it is the duty of
40 the owners to inform the class, because if they don't,
41 the class might be suspended. Every time there is a
42 change, which affects the class, it is a duty of the
43 owners to inform BV or any other classes, it is the
44 same for them, so the class may verify the repairs that
45 should be done or be aware of, keep a trace of it.
46 MR. ROTH-ROFFY: If a minor pump were to fail,
47 would that affect class?
48 MR. TEISSIER: -- the pump.
49 MR. ROTH-ROFFY: What guidance does the
50 company have on what affects class? Is there some sort
51 of a document that says, you know, if these types fail,
52 they will affect your class and therefore, you must

1 notify us or is it left up to the discretion of the
2 crew?
3 MR. TEISSIER: -- rules affect the class, so,
4 if you assist them, which is covered by chapter of the
5 rule, then it would affect them.
6 MR. ROTH-ROFFY: So, the crew has to be very
7 knowledgeable of the class rules to really be able to
8 make that determination.
9 MR. TEISSIER: You mean not member of the
10 crew --
11 MR. ROTH-ROFFY: But, the chief engineer,
12 certainly.
13 MR. TEISSIER: Sure.
14 MR. ROTH-ROFFY: Yes.
15 MR. TEISSIER: Or all the personnel onshore,
16 supervising the ship --
17 MR. ROTH-ROFFY: And that notification by the
18 company to BV an affect on class, do you recall
19 receiving any such notifications from the Norway?
20 Either management or the crew?
21 MR. HOFSETH: In what respect?
22 MR. ROTH-ROFFY: Any, so in the last couple of
23 years that you have been working with the Norway, have
24 you ever received notification of an equipment problem
25 that affected class?
26 MR. HOFSETH: Yeah, I have been aboard and
27 inspected every job that I think, I take a look at it
28 and make my --, you know, if it is necessary to repair
29 it, and like on the, on the last inspection there was a
30 couple of things and, and I put in a recommendation how
31 long they should make before repairing it.
32 MR. ROTH-ROFFY: Is it required that they
33 notify you written or can they just, whenever they see
34 you, tell you, hey, we had a problem with this piece of
35 equipment?
36 MR. HOFSETH: Both.
37 MR. ROTH-ROFFY: Okay. But, is it required
38 that they notify you in writing or not?
39 MR. HOFSETH: Not it is not required, they
40 have to notify us, I mean, you know, if you are down,
41 they show it to you, and if it is something important
42 that happened and we not data record, and then we come
43 down and look at it.
44 MR. ROTH-ROFFY: And would you make a notation
45 or some sort of a note in some document that would
46 indicate that the crew brought this to your attention
47 and then you inspected it?
48 MR. HOFSETH: Yes, we would make a
49 recommendation. We would not particular point out this
50 was reported by the crew. We will make a
51 recommendation and follow up on it.
52 MR. ROTH-ROFFY: But, there would be no

1 written record of it that you made a recommendation?
2 MR. HOFSETH: Of course it will. The
3 recommendation would be left onboard.
4 MR. ROTH-ROFFY: Okay.
5 MR. HOFSETH: And you should verify what the
6 recommendation is. The recommendation is that a
7 certain compliment or the part of the machinery has to
8 be repaired within one month, within two months, within
9 five months, depending on what it is. And if it can be
10 repaired in operation, or in dry dock or required dry
11 dock, whatever.
12 MR. ROTH-ROFFY: So it is like a class
13 requirement that you issue to the operator.
14 MR. HOFSETH: Yes.
15 MR. ROTH-ROFFY: Okay. I think I am done. We
16 will try one more time around.
17 MR. CURTIS: I am good.
18 MR. OLSON: So, if there is --
19 MR. ROTH-ROFFY: Ken Olson.
20 MR. OLSON: Ken Olson.
21 Just to reaffirm, there is a requirement for
22 the company to report to you conditions that may take
23 them out of class.
24 MR. HOFSETH: Yes.
25 MR. OLSON: Two years ago, when the fire main
26 was found, was that like a condition, would that be
27 considered one of those types of events?
28 MR. HOFSETH: He can answer that.
29 MR. TEISSIER: -- in class. But, we could --
30 MR. OLSON: Okay. Okay. But, have there been
31 instances where they have informed you, that hey, we
32 need you to come down and look at the boilers or
33 anything like that? Have you been called out
34 specifically for the boiler or combustion control?
35 MR. TEISSIER: Not to my remember, no, no,
36 no. Not to my remember.
37 MR. OLSON: Okay.
38 MR. ROTH-ROFFY: Okay. Sir, I think we are
39 finally finished with you. We thank you for your, your
40 assistance and appreciate you coming down. Thank you
41 very much.
42 It is about 11 minutes to three and that
43 concludes our interview of Mr. Idar Hofseth. Thank
44 you, sir.
45 MR. HOFSETH: Thank you.
46 (Whereupon, at 2:49 p.m., the interview was
47 concluded.)