

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF MARINE SAFETY

**SS NORWAY ENGINEERING GROUP
MAJOR MARINE ACCIDENT
DCA 03 MM 032
INVESTIGATIVE INTERVIEWS**

INVESTIGATIVE INTERVIEW OF:
ROY McBRIDE, SURVEYOR
BUREAU ~~OF~~ VERITAS

Friday, June 6, 2003

In Attendance:

TOM ROTH-ROFFY, NTSB
BRIAN CURTIS, NTSB
MICHEL LAMBERT, BUREAU OF VERITAS
NICOLAS SWERDLOFF, ESQ.
KEN OLSEN, USCG
JOHN RILEY, NCL CONSULTANT
TERRY STEINFORD, USCG
CHRIS FOONG, NCL

P R O C E E D I N G S

12:50 p.m.

1
2
3 MR. ROTH-ROFFY: Okay. Good afternoon. It's
4 about 10 minutes till 1, and the date is the 6th of
5 July -- of June, 2003, and we're here to interview Mr.
6 Roy McBride, Surveyor, Senior Surveyor, with Bureau of
7 Veritas.

8 Good afternoon, sir.

9 MR. McBRIDE: Good afternoon.

10 MR. ROTH-ROFFY: My name is Tom Roth-Roffy,
11 and I'm an investigator with the National
12 Transportation Safety Board in Washington, D.C.

13 The National Transportation Safety Board is a
14 federal -- U.S. Federal Government agency responsible
15 for investigating transportation accidents in the
16 United States. The Office of Marine Safety, of which I
17 work for, is part of NTSB, and we do all maritime
18 accidents, major maritime accidents that occur in U.S.
19 waters.

20 We are conducting an investigation of the
21 accident that occurred aboard the SS Norway on the 25th
22 of May 2003. Our investigation is strictly a safety
23 investigation. We are interested in, if we can,
24 determining the cause of the accident and then to make
25 a recommendation to companies or agencies aimed at
26 preventing similar future accidents.

27 As I said, our investigation is a safety
28 investigation, and it's not a legal investigation. We
29 have no interest in assigning legal liability to any
30 person or company. We're just interested in finding
31 out what happened and how we might help to prevent it
32 in the future.

33 What I'd like now is for everybody in the
34 room to please introduce themselves.

35 MR. CURTIS: I'm Brian Curtis with the NTSB.
36 I'm a marine engineering accident investigator.

37 MR. LAMBERT: Michel Lambert, Bureau of
38 Veritas.

39 MR. SWERDLOFF: Nic Swerdloff, attorney for
40 Bureau of Veritas and Mr. McBride.

41 MR. McBRIDE: I'm Roy McBride.

42 MR. FOONG: Chris Foong, Technical
43 Operations, NCL.

44 MR. RILEY: John Riley, Independent Surveyor
45 for NCL.

46 MR. OLSEN: Ken Olsen, Coast Guard
47 Headquarters, Washington.

48 MR. STEINFORD: Terry Steinfeld, Coast Guard
49 Marine Safety Office in Miami.

1 MR. ROTH-ROFFY: Okay. Now, we are taping
2 this -- this interview and if -- if you'd like, you may
3 -- we can give you a copy of it and you can review it
4 for -- for accuracy and provide any corrections and
5 we'll be happy to make those corrections before, you
6 know, it actually goes out.

7 So, let's -- let's begin. Sir, could you
8 describe your current position and your
9 responsibilities?

10 MR. McBRIDE: I'm -- I'm the -- what is known
11 inside BV as the survey station operations manager.
12 So, I have the control over the surveyors inside the --
13 all of our surveyors inside the United States and
14 Canada and the carrying out of the surveys they do.

15 MR. ROTH-ROFFY: So, this office here that
16 you work out of in Miami, is it kind of like the
17 headquarters for BV USA?

18 MR. McBRIDE: Yes, it is.

19 MR. ROTH-ROFFY: Okay. And could you
20 describe in -- in a little more detail of what your
21 duties include, how -- how you -- how you supervise
22 these -- these surveyors? Did you say supervise or --
23 or manage or what did you say?

24 MR. McBRIDE: Well, manage -- manage the
25 surveyors and also at periodic intervals carry out
26 monitoring and training as -- as far as new -- new
27 rules and requirements as they come in. So, all the
28 jobs to be carried out in -- in the U.S. and also many
29 of them in Canada as well come to our office here. So,
30 my function is to decide which -- which surveyor
31 carries out the -- the job in which place, who is best
32 qualified to do the surveying, and to monitor -- to
33 discuss the job in process with him. We do that, of
34 course, by telephone, and monitor his -- his reporting
35 at the finish and the preparation of the job for
36 invoicing which -- which not -- not always done here.
37 It's done in whichever center the -- the ship is
38 closest to.

39 MR. ROTH-ROFFY: Did you say what kind of
40 center?

41 MR. McBRIDE: The center, yeah. Yeah. For
42 instance, we have many, many ships come to the United
43 States owned by Greek owners. So, -- so, the -- the
44 internal processing inside BV is for the reporting to
45 be done, of course, here in the United States,
46 transmitted electronically to the -- to Pyrias where
47 they will print out reports and -- and do the invoicing
48 to the owners in Greece.

49 MR. ROTH-ROFFY: Okay. And about how many

1 offices are there in the United States and Canada?

2 MR. McBRIDE: We don't have offices as such
3 because our guys work with laptop computers from their
4 -- from their homes, and they -- and they replicate
5 with our central facility here, although we -- we do
6 actually have an office in Montreal, though.

7 MR. ROTH-ROFFY: I see.

8 MR. McBRIDE: Yeah. But it's not primarily
9 for -- for marine. We -- we just have one office there
10 just convenient for the local guy.

11 I can tell you the -- the people that we
12 have, we have two surveyors in the New York-New Jersey
13 area. We have -- in the Miami area, we have three --
14 three of us. In Tampa, we have one. In New Orleans,
15 we have two, and in Houston, we have two. Vancouver,
16 we have two. Montreal, one, and Quebec City, one.

17 MR. ROTH-ROFFY: For a total of about how
18 many surveyors?

19 MR. McBRIDE: 14 or 15.

20 MR. ROTH-ROFFY: And that's pretty constant,
21 has been that way for awhile?

22 MR. McBRIDE: Yeah. For the last several
23 years. Well, many years ago, BV used to work a lot of
24 non-associates but that's long since gone by, and you
25 can say for the last seven years, I would say, it's
26 been like that.

27 MR. ROTH-ROFFY: You said you arrange
28 training for your surveyors. Could you describe about
29 the training that -- that is -- is provided by BV to
30 the surveyors?

31 MR. McBRIDE: Okay. We have formalized
32 indoor training which takes place -- excuse me. I
33 think the last -- the last -- we had -- at least once a
34 year, we have some formalized indoor training, and once
35 a year at least, at least, could be more, we do
36 monitoring of -- of every surveyor on the job.

37 MR. ROTH-ROFFY: You said indoor?

38 MR. McBRIDE: Indoor is the phrase. In -- in
39 a room.

40 PARTICIPANT: Indoors?

41 MR. McBRIDE: Inside.

42 MR. ROTH-ROFFY: Oh, indoors?

43 MR. McBRIDE: Indoors. Sorry.

44 MR. ROTH-ROFFY: I didn't catch the accent.

45 MR. McBRIDE: Yeah.

46 MR. ROTH-ROFFY: And that's done once a year?
47 At least once a year?

48 MR. McBRIDE: Yeah. Yeah. Once a year.
49 About once a year.

1 MR. ROTH-ROFFY: About once a year.

2 MR. McBRIDE: Yeah.

3 MR. ROTH-ROFFY: And --

4 MR. McBRIDE: We also have an examination
5 process, too. We had 18 months or in 2000. Anyway,
6 about less than two years ago, all the surveyors had to
7 take an examination which is a two -- two-day
8 examination and -- and that's valid for four years.

9 MR. ROTH-ROFFY: So, it's valid for four
10 years. Every four years, they have to take another
11 examination?

12 MR. McBRIDE: Yes, yes.

13 MR. ROTH-ROFFY: Is there additional training
14 that -- that's provided in preparation for the
15 examination or is it self-study or?

16 MR. McBRIDE: We have -- we have self --
17 self-preparation is with -- we have a lot of CD-ROMs
18 covering every case that we encounter.

19 MR. ROTH-ROFFY: I see.

20 MR. McBRIDE: So, those -- those CD-ROMs
21 pretty much help to prepare a surveyor for -- for the
22 examination but not completely. I mean, people have to
23 have their own experience as well.

24 MR. ROTH-ROFFY: And you say before the last
25 exam was 2000, you had some period of training for the
26 surveyors in preparation? Was that also CD-ROM or was
27 that classroom training or?

28 MR. McBRIDE: No. It was classroom training.

29 MR. ROTH-ROFFY: About how long did that
30 last, and where was it held?

31 MR. McBRIDE: We held them in three places --
32 no, four. We held one in Vancouver, in New Orleans,
33 and in Fort Lauderdale, New York, and also in Montreal.
34 And the training ranged between -- like in Montreal
35 and New York and Vancouver, I think it was two days.
36 The others would -- would be three days.

37 MR. ROTH-ROFFY: And could you kind of just
38 describe the overview of -- of what was included in
39 that training session?

40 MR. McBRIDE: The -- the rules of the
41 Society, of course, are part of -- part of the
42 subjects, and then the -- how -- how to behave, how to
43 act with an owner, and then more technical aspects
44 pertaining to each kind of job. What is an annual
45 survey, all the different criteria in that, and
46 including, you know, safety equipment, the full range,
47 and then the surveyors keep -- they keep these CD-ROMs
48 and periodically those CD-ROMs come out.

49 MR. ROTH-ROFFY: Did that training include

1 boiler surveying of propulsion boilers?

2 MR. McBRIDE: It included boiler surveys,
3 yes. No, not specifically for propulsion but just
4 boilers.

5 MR. ROTH-ROFFY: And can you recall
6 approximately how long that boiler survey module
7 lasted? Was it an hour or four hours or do you have
8 any recollection? If you don't, it doesn't matter.

9 MR. McBRIDE: I would say that would run for
10 about -- you know, at the time, it's not just
11 straightforward. There's discussion on -- discussion
12 on it as well. I would say half a day.

13 MR. ROTH-ROFFY: Okay.

14 MR. McBRIDE: Say three to four hours, maybe
15 more like that.

16 MR. ROTH-ROFFY: You say you -- could you
17 describe your staff? Who assists you in performing
18 your duties, and who are your seniors and who are your
19 subordinates?

20 MR. McBRIDE: All right. My -- my deputy is
21 Idar Hofseth, who you know well.

22 MR. ROTH-ROFFY: Right.

23 MR. McBRIDE: And we have another surveyor
24 here called Harold Smit who has -- he has an extensive
25 background in diesel engines. He worked for Stockworks
26 for -- and he has -- has sailing experience as a chief
27 engineer in the Dutch -- Dutch freight.

28 We have a house surveyor in Tampa, Peter
29 Bergman. He has -- actually, his -- his sea time is
30 about 50 percent steam and 50 percent on diesels. We
31 have in New Orleans, we have Gary Johnson, who's the
32 senior, too. He's ex-Coast Guard. He was a commander
33 in the Coast Guard. The other surveyor there is called
34 Wade Stoner. He's a young guy with -- with sailing
35 experience. He's ex-Kings Pointe. We have in Houston,
36 we have a surveyor called Dan Grove, who's ex-Coast
37 Guard in marine safety, and a guy called Henry Cook,
38 who is a diesel engine guy. He worked for -- he worked
39 for Stork.

40 Then in Vancouver -- I'm just going --

41 MR. ROTH-ROFFY: Sure.

42 MR. McBRIDE: -- around the country that way,
43 you know.

44 MR. ROTH-ROFFY: Sure.

45 MR. McBRIDE: In Vancouver, we have Andrea
46 Laroush, who was previously a naval architect. He's
47 been with BV doing surveys for, I'm not quite sure, at
48 least 20 years, maybe more, and then a younger guy
49 called Badheim Arayans, who is ex-seagoing engineer,

1 and then in -- in Montreal, we have Olaf Morgensen,
2 who's originally a naval architect, but he also has
3 been with BV 20 or 30 years, and then in Quebec City,
4 we have Michel Dione, who is -- he's an ex-chief
5 engineer and also extensive -- extensive work with
6 shipyard -- ship repair and shipyard background, and in
7 New York area, we have Don Jalaska. He's an ex-
8 seagoing engineer and superintendent. He's a senior
9 one, and another younger guy called Sibiguru Maniville,
10 who has had some experience at sea.

11 MR. ROTH-ROFFY: Okay. So, those are all
12 your surveyors that -- that you kind of oversee?

13 MR. McBRIDE: Yeah.

14 MR. ROTH-ROFFY: Do you do that with Idar's
15 help or is that something that you would normally do as
16 your own duties, overseeing the surveyors?

17 MR. McBRIDE: I -- I do it -- when I -- when
18 I go on vacation, Idar, he does it in the office then.
19 So, he -- he does some overseeing as well.

20 MR. ROTH-ROFFY: Okay. And how do you
21 perform your oversight functions of the surveyors?

22 MR. McBRIDE: You mean from the office or
23 from the --

24 MR. ROTH-ROFFY: However you do it, whether
25 it's from the office or if you go out there or you
26 review their paperwork. How do you --

27 MR. McBRIDE: Well, you know, they've been
28 employed for several years. So, I know them pretty
29 well.

30 MR. ROTH-ROFFY: Right.

31 MR. McBRIDE: What -- what their strong and
32 weak points are. So, if -- if somebody's going on a
33 ship that has certain critical points about it, we
34 discuss it well in advance, and when -- also when
35 they're on board, too, like what they're finding, what
36 they're looking at. If necessary, we send two people
37 to --

38 MR. ROTH-ROFFY: So, you would -- you would
39 talk to them as before they do the inspection to make
40 sure they understand what they're looking for?

41 MR. McBRIDE: It really depends on what
42 they're going to do. Especially -- a special
43 significance for us is -- is ships -- all ships that
44 may have structural problems.

45 MR. ROTH-ROFFY: Hm-hmm.

46 MR. McBRIDE: So, before attending on board a
47 ship of that nature, we will want to have a good --
48 good talk about it, and also, I want to review the
49 history of the ship, too.

1 MR. ROTH-ROFFY: Sure.

2 MR. McBRIDE: But other ships that we know
3 very well and the surveys are very routine, we don't
4 have any particular conversation about that.

5 MR. ROTH-ROFFY: And do you periodically have
6 a look at their -- the documents that they prepare?

7 MR. McBRIDE: Every single one. Every --
8 every report is replicated from their computer to -- to
9 mine in the office, and I -- I print them out and --
10 and review them before they're validated for --

11 MR. ROTH-ROFFY: I see. And tell me about
12 your superiors. Who do you work for? You know, just
13 to get an idea of --

14 MR. McBRIDE: Okay. The system inside, it's
15 a verticalized system. My -- my superior is Francois
16 Tessier, and we report directly to Paris.

17 MR. ROTH-ROFFY: Francois Tessier is also
18 here in Miami?

19 MR. McBRIDE: Yes. He's here in the office.

20 MR. ROTH-ROFFY: Okay. And about how long
21 have you been doing this -- this -- this job as a
22 survey station operations manager?

23 MR. McBRIDE: Since 1997. Was it '97? I
24 guess I'm asking. I think it was '97.

25 MR. ROTH-ROFFY: And what was your -- your
26 work before that? What were you doing?

27 MR. McBRIDE: I was doing the same job. I
28 was a surveyor, and I've been with BV almost 19 years.

29 MR. ROTH-ROFFY: And before you worked with
30 BV, were you another class of Society or --

31 MR. McBRIDE: No.

32 MR. ROTH-ROFFY: -- seagoing?

33 MR. McBRIDE: No. I was -- I was a
34 superintendent with a shipping company.

35 MR. ROTH-ROFFY: Okay. Which company was
36 that?

37 MR. McBRIDE: Uiterwyk. They were based in
38 Tampa. They have 15 ships and we had three
39 superintendents. We had five -- five ships each.

40 MR. ROTH-ROFFY: What type of ships were
41 those?

42 MR. McBRIDE: These were general cargo and
43 refrigerated.

44 MR. ROTH-ROFFY: You said that was Utiwick?

45 MR. McBRIDE: Uiterwyk, U-I-T-E-R-W-Y-K.

46 MR. ROTH-ROFFY: Okay. So, you've been doing
47 the manager position about six years and before that
48 about 13 years you were a surveyor here in Miami?

49 MR. McBRIDE: No. I was also -- from '84 to

1 '91, I was in the New York Office. We had -- our main
2 office was in New York. Then I was transferred to
3 Miami.

4 MR. ROTH-ROFFY: Okay. You say your main
5 office was in New York?

6 MR. McBRIDE: No, no. Until '91.

7 MR. ROTH-ROFFY: I see. Gotcha.

8 PARTICIPANT: No, no. I'm sorry to
9 interrupt. The main office was in New York until '97.

10 MR. ROTH-ROFFY: Now, the main office is here
11 in Florida?

12 PARTICIPANT: We moved the whole thing.

13 MR. ROTH-ROFFY: Okay. Okay. So, from '91
14 to '97, you worked here in Miami as a surveyor?

15 MR. McBRIDE: Yes.

16 MR. ROTH-ROFFY: During those years, did you
17 work on the Norway?

18 MR. McBRIDE: Yes.

19 MR. ROTH-ROFFY: Were you the exclusive
20 surveyor on the Norway or were there others involved
21 that you shared that responsibility with?

22 MR. McBRIDE: There were others because the
23 ship went to other places. You know, for instance, it
24 -- its -- all of its repairs were done in Europe.

25 MR. ROTH-ROFFY: But in the United States,
26 you were the primary person?

27 MR. McBRIDE: I was. I was -- I was mainly,
28 not only but mainly, I was -- it was just me.

29 MR. ROTH-ROFFY: And the other Caribbean
30 ports, if they would go into there, you would -- if
31 there was work, surveying work, you would go?

32 MR. McBRIDE: Well, for instance, yeah. We
33 would go. We would travel, but if it could be done in
34 Miami, of course, we'd do it in Miami for economical
35 reasons, but -- but --

36 MR. ROTH-ROFFY: During the time you were
37 doing the surveys aboard the Norway, do you recall any
38 repairs being done on the -- on the drums or the
39 headers on any of the boilers? Any type of welding
40 repairs?

41 MR. McBRIDE: No.

42 MR. ROTH-ROFFY: And is that something that
43 you're fairly certain of or it's just your
44 recollection? Would you have to refer to any documents
45 to -- to verify that or not?

46 MR. McBRIDE: It's my recollection, but also,
47 the records of the ship are quite -- you know, for
48 instance, when it went over to Europe for repairs, we
49 -- we had all the -- the reports came to our office.

1 So, I'm -- I'm fairly -- I'm -- I'm really quite sure,
2 but I could be wrong, of course, but I believe it was
3 no -- no -- no repairs done to the drums.

4 MR. ROTH-ROFFY: Or the headers?

5 MR. McBRIDE: What? Or the headers. Yeah.
6 There was other kind of work carried out. The
7 economizers have been renewed and tubes have been
8 renewed, but not -- not the headers themselves.

9 MR. ROTH-ROFFY: And when tubes -- tubes
10 would be renewed on the boilers, would you come down as
11 a BV surveyor to verify the work was done properly?

12 MR. McBRIDE: No, we never saw any tubes
13 being renewed here. The tubes, as necessary, tubes
14 would be plugged. They would be done in the drydock
15 time.

16 MR. ROTH-ROFFY: Right.

17 MR. McBRIDE: So, I personally never saw any.

18 MR. ROTH-ROFFY: Okay. That was done in
19 Bremerhaven, as I believe we've heard.

20 MR. McBRIDE: Yeah. They pretty much -- they
21 pretty much used to go to Germany. I think they went
22 to Southampton one time as well.

23 MR. ROTH-ROFFY: And since '97, after you
24 assumed your present position, have you had the
25 opportunity to -- to come aboard the Norway to do any
26 surveys?

27 MR. McBRIDE: Oh, yeah. Yes.

28 MR. ROTH-ROFFY: And would that be as the
29 sole surveyor or would you be assisting Idar or how
30 would that work?

31 MR. McBRIDE: No. I used to -- I continued
32 with -- with the Norway because I was familiar with the
33 ship, and then we -- we decided, I can't remember what
34 year it was, might have been in 2000, because another
35 thing is when -- you know, when you're out of the
36 office for a solid week or more than that, when you go
37 back, it's two-three weeks to catch up. So, -- so,
38 then we also decided it's -- it's not a -- on ships.
39 So, Idar has been doing it since -- I think it's 2000
40 or 2001. I can't recall. Last two or three years.

41 MR. ROTH-ROFFY: So, you still are engaged as
42 a surveyor in the Miami area with BV?

43 MR. McBRIDE: I still do surveying.

44 MR. ROTH-ROFFY: Okay.

45 MR. McBRIDE: But -- but I try -- you know, I
46 got an office job as well, you know. I can't do them
47 both. If it's a weekend, it's fine for me, you know,
48 or -- or late in the afternoon, it's perfect for me,
49 but I don't do a lot. I mean, if I do one every two

1 weeks, that's fine.

2 MR. ROTH-ROFFY: When you say one every two
3 weeks, you're referring to annual hull and machinery
4 exams or -- or one visit every two weeks?

5 MR. McBRIDE: No. I -- the ones I -- I
6 usually go on fairly -- on fairly small jobs.

7 MR. ROTH-ROFFY: Which -- what would you
8 describe as a small job?

9 MR. McBRIDE: Completion of repairs,
10 something of this nature.

11 MR. ROTH-ROFFY: And would an annual survey
12 of hull and machinery be a small job or --

13 MR. McBRIDE: No. It's very time-consuming.

14 MR. ROTH-ROFFY: I see.

15 MR. McBRIDE: That's the problem. It'd take
16 you, say, a day and a half to do.

17 MR. ROTH-ROFFY: Okay. I don't know if I
18 asked you this correctly. I asked you if you had ever
19 seen any welding repairs on the drums or headers while
20 you were the surveyor on the Norway. I -- I didn't
21 realize that after '97, you had continued your
22 surveying.

23 So, why don't we just say ever. Have you
24 ever become aware of any welding repairs on the headers
25 or -- or drums on -- on any of the boilers?

26 MR. McBRIDE: No, I have not.

27 MR. ROTH-ROFFY: Since you've been associated
28 with -- with the Norway here in Miami or at any time?

29 MR. McBRIDE: No.

30 MR. ROTH-ROFFY: Okay. What about testing?
31 Are you aware of -- of any ultrasonic or non-
32 destructive testing or x-ray testing that's been done
33 on these boilers, the headers and the drums?

34 MR. McBRIDE: I'm aware of radiography
35 testing when -- when they installed some new
36 economizers.

37 MR. ROTH-ROFFY: Okay.

38 MR. McBRIDE: Which we have all the records
39 of -- of it.

40 MR. ROTH-ROFFY: What kind of testing was
41 that?

42 MR. McBRIDE: Radiography. Radiography
43 testing.

44 MR. ROTH-ROFFY: And do you recall about when
45 that was done?

46 MR. McBRIDE: My memory's not the best. It
47 could be in the -- it could be in the late '90s. Also,
48 I also can't remember which boiler it was done on
49 either, but, I mean, it's in the records.

1 MR. ROTH-ROFFY: Sure. We'll probably find
2 it.

3 MR. McBRIDE: Yeah.

4 MR. ROTH-ROFFY: Are you aware of any -- any
5 other testing that was done, besides that, on the drums
6 or the headers? X-ray or again the different types of
7 testing that might be done? Are you familiar with any
8 of that having been done?

9 MR. McBRIDE: No. Because any repair work
10 was not done here, major -- major kind of repairs, but
11 I'm -- in any case, I'm unaware of any -- any welded
12 repairs. But the -- last year, they did install some
13 -- some new superheated tubes as well.

14 MR. ROTH-ROFFY: Was there --

15 MR. McBRIDE: In 2002.

16 MR. ROTH-ROFFY: Was there testing done in
17 conjunction with that repair, if you recall?

18 MR. McBRIDE: I can't recall it. Hydro --
19 there was hydro-testing certainly done. But any other
20 testing, I can't recall.

21 MR. ROTH-ROFFY: And since '91, you've been
22 associated with the Norway, I guess?

23 MR. McBRIDE: Either '91 or '92.

24 MR. ROTH-ROFFY: Okay. Somewhere in there?

25 MR. McBRIDE: Around that -- around that
26 area, yeah.

27 MR. ROTH-ROFFY: Since '91 or '92, since
28 you've been working on the Norway, have you been --
29 become aware of any problems with cracking, abnormal
30 cracking or pitting on the drums or any major
31 components of -- of the boiler?

32 MR. McBRIDE: No.

33 MR. ROTH-ROFFY: Since -- during that time,
34 have you become aware of any maybe less significant
35 cracking that maybe was identified but was thought to be
36 not significant enough to -- to pursue?

37 MR. McBRIDE: No.

38 MR. ROTH-ROFFY: Are you aware of or have you
39 heard of any cracking that had been weld -- that had
40 been ground down and rewelded and -- and just monitored
41 since you've been affiliated with the Norway surveying?

42 MR. McBRIDE: On the boilers?

43 MR. ROTH-ROFFY: Correct.

44 MR. McBRIDE: No.

45 MR. ROTH-ROFFY: Okay. Have you performed
46 complete boiler surveys on -- on the boilers on the
47 Norway?

48 MR. McBRIDE: I -- I completed really --
49 really internal and external. Yes, I have, also in the

1 '90s.

2 MR. ROTH-ROFFY: Could you describe what you
3 -- you normally do or what's required to be done as
4 part of that complete boiler survey?

5 MR. McBRIDE: Well, complete survey is, first
6 of all, is a review of the -- of the log book and to
7 see -- see what has been -- what has been carried out
8 as maintenance on the boiler. A check of the
9 monitoring of the -- of the -- of the water -- water
10 treatment, and then an external examination of all the
11 -- of all the -- all the associated fittings of the
12 boiler.

13 MR. ROTH-ROFFY: Okay.

14 MR. McBRIDE: And including the -- the fuel
15 supply and the four-strap arrangements and complete --
16 completely around the boiler. Visual examination.

17 MR. ROTH-ROFFY: Okay.

18 MR. McBRIDE: It would include, also, a test
19 of the -- the burner protection devices, and this is --
20 this is at -- might -- you can do either way, preceded
21 or followed by -- by an internal examination, first of
22 all, of the -- of the steam terminal, the fittings, the
23 feed fittings moved out of the way so we can get in
24 there, examination of all the -- all the tubes as they
25 go into the steam drum, examination of the dismantled
26 attachments.

27 MR. ROTH-ROFFY: Okay.

28 MR. McBRIDE: Examination of the -- the
29 furnace, the refractory materials, examination of the
30 screen tubes, external examination of the -- of the
31 superheaters, and also -- also the -- the economizers,
32 too, and the air heater.

33 Also, depending which way you do it, I mean,
34 also, a check of the -- when the -- when the safety
35 valves are -- are lifting. I think I've only done that
36 twice on the time I can recall.

37 MR. ROTH-ROFFY: Is that pretty much --

38 MR. McBRIDE: I think that's pretty much it,
39 yeah. I may have forgotten something.

40 MR. ROTH-ROFFY: Okay. You mentioned that
41 you do an internal exam of the steam drum.

42 MR. McBRIDE: Yeah.

43 MR. ROTH-ROFFY: As part of that exam, are
44 the internals removed from the drum, as you recall, or
45 --

46 MR. McBRIDE: Just only for access purposes,
47 so that you can -- so that you can get down to the --
48 to -- to crawl along the drum and visually inspect all
49 of the tubes -- the tubes.

1 MR. ROTH-ROFFY: So, you would enter the drum
2 and crawl the length of it, --
3 MR. McBRIDE: Yeah.
4 MR. ROTH-ROFFY: -- all the way to the back,
5 --
6 MR. McBRIDE: Yeah.
7 MR. ROTH-ROFFY: -- examining the tubes?
8 MR. McBRIDE: Yeah, yeah. And looking --
9 looking at the -- closely -- closely at the drums as
10 well as the space between the tubes.
11 MR. ROTH-ROFFY: Okay. You mentioned the
12 safety valve lifting. Is that something that's -- that
13 should be done as part of the complete boiler survey or
14 -- or you've said you've only done it twice.
15 MR. McBRIDE: Most of the -- most of the so-
16 called complete surveys were done in -- in Europe. We
17 -- we haven't done that many here.
18 MR. ROTH-ROFFY: Oh, is that right? Okay. I
19 wasn't aware of that.
20 MR. McBRIDE: We've done -- we've done
21 externals, external surveys, and like annual external
22 surveys.
23 MR. ROTH-ROFFY: Okay. So that, the complete
24 boiler surveys that you've done, are you saying you've
25 only done two complete boiler surveys since you say
26 you've only --
27 MR. McBRIDE: I may have done -- I may have
28 done more. I may have done three, but not -- not --
29 not that many.
30 MR. ROTH-ROFFY: Okay. Really, my question
31 is, is the lifting of the safety valves part of the
32 complete boiler safety -- complete boiler survey?
33 MR. McBRIDE: Yeah.
34 MR. ROTH-ROFFY: Okay. What about internal
35 examination of -- of the water drum and the water wall
36 header? Is -- is that something that you would
37 normally do or that you did do in the couple of times
38 you made surveys?
39 MR. McBRIDE: We've -- we've -- we have the
40 end covers off. You can -- you can site -- you can
41 site the -- the water drums visually and if -- if -- if
42 -- you know, we considered them to be in -- in the
43 normal condition.
44 MR. ROTH-ROFFY: So, you -- you basically
45 stick your head in --
46 MR. McBRIDE: Yeah.
47 MR. ROTH-ROFFY: -- with a flashlight and
48 site through the length --
49 MR. McBRIDE: Yeah.

1 MR. ROTH-ROFFY: -- and you're able to
2 evaluate the -- the internal condition of the drum by
3 doing that?

4 MR. McBRIDE: You have -- you have -- first
5 of all, it's from the -- you have an impression from
6 the steam drum. You can see if there's any -- anything
7 going on, but the -- the lower drum itself is -- is --
8 the times -- the times I did it anyway, it was done
9 with a -- with a flashlight or lights, you know, as far
10 as -- as far as we could see.

11 MR. ROTH-ROFFY: Okay. So, have -- have you
12 ever in the couple of times -- now, when you say you've
13 done two complete boiler -- two or three -- I'm not
14 trying to hold you to it.

15 MR. McBRIDE: No, no. I -- I have to look in
16 the records to see.

17 MR. ROTH-ROFFY: Sure. But are you saying
18 two or three boilers only as you've examined or --
19 I think that's what I'm understanding.

20 MR. McBRIDE: Yes.

21 MR. ROTH-ROFFY: You've only done complete
22 boiler surveys on two or three boilers?

23 MR. McBRIDE: Yeah.

24 MR. ROTH-ROFFY: In those two or three times,
25 have -- have you ever entered the -- either the -- the
26 water drum or the water wall header?

27 MR. McBRIDE: I've entered the water -- the
28 -- the water drum but not the water wall header.

29 MR. ROTH-ROFFY: Okay.

30 MR. McBRIDE: You mean the water wall header,
31 you mean the small --

32 MR. ROTH-ROFFY: The smaller of the two.

33 MR. McBRIDE: No, I've not entered that.

34 MR. ROTH-ROFFY: Okay. Is the access
35 opening, the manhole cover, of a different size between
36 the two drums, do you recall, or is there an access
37 issue that you would not enter the water wall header?

38 MR. McBRIDE: I don't remember if it's a
39 different size or not.

40 PARTICIPANT: Is it more difficult to get
41 into the water wall header?

42 MR. McBRIDE: It's more difficult to get into
43 it, yes.

44 PARTICIPANT: Certainly I think it's a little
45 bit smaller in diameter.

46 MR. McBRIDE: Yes.

47 MR. ROTH-ROFFY: Could you describe the
48 guidelines that BV gives to surveyors in conducting
49 complete boiler surveys?

1 MR. McBRIDE: Yeah. There's a -- one has to
2 be, first of all, fully prepared for -- for entry. It
3 has to be open and ventilated and cleaned, so that --
4 so that you're able to get access to all of the spaces.

5 MR. ROTH-ROFFY: Does it require a complete
6 examination of all interiors of all -- all headers and
7 drums?

8 MR. McBRIDE: The -- it is specified -- the
9 steam drum is specified.

10 MR. ROTH-ROFFY: Okay.

11 MR. McBRIDE: The lower water drums are not
12 -- are not specified.

13 MR. ROTH-ROFFY: Are not specified to be
14 inspected internally?

15 MR. McBRIDE: No.

16 MR. ROTH-ROFFY: Okay. And that's by your
17 recollection or you -- you're fairly certain that
18 that's the case?

19 MR. McBRIDE: It's by my recollection.

20 MR. ROTH-ROFFY: Okay. Okay. I'm going to
21 let Brian ask a few questions.

22 Do you need a break? You okay?

23 MR. McBRIDE: I'm fine.

24 MR. ROTH-ROFFY: Okay.

25 MR. CURTIS: Hi. Brian Curtis.

26 MR. McBRIDE: Hi.

27 MR. CURTIS: Now, regarding the hiring of
28 surveyors, is there any specific criteria for their
29 background?

30 MR. McBRIDE: Yeah. We want -- we want guys
31 really that we don't have to start and train from
32 scratch. We want somebody that's got some experience.

33 MR. CURTIS: Do they necessarily need a
34 license or any training background in, say, steam or
35 motor?

36 MR. McBRIDE: No, because we have many --
37 many of our surveyors have other backgrounds. For
38 instance, naval architects.

39 MR. CURTIS: But -- so, to work on a boiler
40 per se, you don't need specifically a license or a
41 steam background?

42 MR. McBRIDE: Well, we don't -- we don't
43 normally send anybody into boiler work unless they have
44 some -- some background in steam. It's not fair to
45 them. They can't do the work properly.

46 MR. CURTIS: Right.

47 MR. McBRIDE: Yeah.

48 MR. CURTIS: Regarding the surveyor doing a
49 survey, is there any training in identification of

1 cracks, whether a longitudinal, a transverse crack, of
2 a given type, is more detrimental? In other words, the
3 ability to identify the detrimental effect of a crack,
4 is there any training regarding that?

5 MR. McBRIDE: To -- well, to -- you said to
6 identify the crack, first of all.

7 MR. CURTIS: Hm-hmm.

8 MR. McBRIDE: Which -- which what we do is --
9 is, first of all, visual.

10 MR. CURTIS: Right.

11 MR. McBRIDE: Right. And after finding a
12 crack, then -- then we would get hold of some -- some
13 experts in the field to determine how deep is the
14 crack, etc., and we would also discuss it with our --
15 with our head office about it, too.

16 MR. CURTIS: What are the requirements -- I
17 understand there's a requirement for testing the
18 safeties in the complete survey.

19 MR. McBRIDE: Yeah.

20 MR. CURTIS: Is there a requirement for
21 hydrotesting the pressure vessels? In other words,
22 going above, say, the safety valve settings or higher
23 pressure by clamping them or?

24 MR. McBRIDE: Well, after -- after there's
25 been repair work carried out on the boiler, you would
26 -- you would do a hydrotest. Then you would look at
27 the tubes or economizers or that kind of thing.

28 MR. CURTIS: Is there a prescribed percentage
29 of working pressure that -- that needs to be carried
30 out at?

31 MR. McBRIDE: It's 1.1.

32 MR. CURTIS: When a surveyor does a complete
33 or just a repair survey in the vessel, is there any
34 type of -- does BV have a type of an ethics criteria or
35 restriction on whether you can work on a vessel of your
36 previous employ for some time period?

37 MR. McBRIDE: No, we don't. We need -- when
38 they join BV, they sign an agreement that -- well,
39 everybody signs the same agreement that they won't have
40 any connection with their previous employers. It would
41 affect anything we do.

42 MR. CURTIS: Okay. That's all I have right
43 now.

44 PARTICIPANT: Could I just make a point of
45 clarification? I know I'm not really supposed to speak
46 too much here. But I think the use of the word
47 "complete survey" may be a misnomer. I think it's more
48 of an internal and external survey, and I know that the
49 documents refer to it that way, but I --

1 MR. ROTH-ROFFY: Let's just go off the record
2 and clarify this.

3 (Discussion off the record.)

4 MR. ROTH-ROFFY: Okay. We took a little
5 pause there to clarify a point of information regarding
6 the terminology or phraseology used in the inspection
7 or survey of boilers.

8 Mr. McBride, could you perhaps capture what
9 we just talked about regarding the terms "complete
10 boiler survey" and "internal examination" and "external
11 examination" or however you use the phrases?

12 MR. McBRIDE: Right. The previously-used
13 phrase of complete boiler survey, you can take it to
14 mean external survey and internal survey. I think
15 that's -- that's about all -- all you can say.

16 MR. ROTH-ROFFY: But now, in your current
17 documents or records, I don't know what you call these,
18 inspection certificates or --

19 MR. McBRIDE: Record of Inspections.

20 MR. ROTH-ROFFY: Okay. So, in your Record of
21 Inspections now, would you -- would you log it as a
22 complete boiler survey or would you now log it as an
23 internal/external examination?

24 MR. McBRIDE: You should log it now as
25 internal and external survey.

26 MR. ROTH-ROFFY: All right. I think that's
27 -- that's enough.

28 Back to Brian Curtis.

29 MR. CURTIS: I had finished my questioning.
30 Thank you.

31 PARTICIPANT: No questions.

32 PARTICIPANT: I have a question. You
33 mentioned that some of the drums, like the headers,
34 that -- that you should -- what would be the typically
35 to -- to satisfy the -- did you have a secondary
36 inspection or you basically leave it as it is?

37 MR. McBRIDE: Well, if you -- if you go
38 through the top drum, there are no problems with the
39 tubes or no -- no -- no problems -- no evidence of
40 tubes leaking.

41 PARTICIPANT: So, you --

42 MR. McBRIDE: It's a reference.

43 PARTICIPANT: Okay. My second question is on
44 hydrotesting. You said you -- you only require
45 hydrotesting after repairs or -- or you have inspect of
46 the boilers. I'm not talking about these boilers. In
47 general, if you have a suspicion about the condition of
48 a boiler?

49 MR. McBRIDE: You have to request a hydrotest

1 right away.

2 PARTICIPANT: Would -- would you order the
3 hydrotest at any other time, like the age of the vessel
4 or age of the boiler?

5 MR. McBRIDE: No, not normally. I think it's
6 -- I think our rules only call for it when repairs are
7 being carried out or you -- you suspect it.

8 PARTICIPANT: Okay. Thank you.

9 PARTICIPANT: No questions.

10 MR. OLSEN: You -- you mentioned -- you
11 mentioned that surveyors were suited to the vessels
12 they inspect based on their qualifications. Would it
13 be necessary that -- for surveyors of the Norway to
14 have steam vessel engineering experience?

15 MR. McBRIDE: Yes.

16 MR. OLSEN: It would be. Suppose you went
17 down on the Norway and looked in a drum and you found
18 that there was welding -- found that welding had taken
19 place that you were unaware of. What would you do?
20 What would be required of -- of you to do, and what
21 would be the steps that would take place?

22 MR. McBRIDE: Unauthorized welding in a drum?

23 MR. OLSEN: Yeah.

24 MR. McBRIDE: Oh, wow. I mean, there's a
25 first step. You'd ask for the -- you would ask to see
26 what all the welding procedures that had been -- that
27 had been used, with the pre-heating, etc., and that's
28 the very first step, and then you'd have to require
29 radiography on all of the welds that had been -- that
30 had been carried out.

31 You'd need to know the preparations that were
32 done, the -- the welding preparations and certification
33 of the welders concerned, the whole -- but apart from
34 that, I would -- I would want to have a complete -- I
35 would -- I would take that full responsibility on
36 myself. I would get the fullest details and refer back
37 to our head office --

38 MR. OLSEN: If it meant delaying --

39 MR. McBRIDE: -- for further instructions.

40 MR. OLSEN: Okay. If it meant delaying the
41 vessel, would -- would you be resistant to doing such
42 work or would that now not become part of your
43 decision?

44 MR. McBRIDE: I would have to have a very
45 good case, of course.

46 MR. OLSEN: Yes.

47 MR. McBRIDE: Yes. No. I think in a case
48 like that, where you're unsure about the safety of the
49 vessel, you -- you would have to -- you would have to

1 delay the vessel until it could be resolved.
2 MR. OLSEN: Hm-hmm.
3 (End Tape 1, Begin Tape 2)
4 MR. OLSEN: Are these documents translated
5 from French or are they written in English?
6 MR. McBRIDE: I don't know.
7 MR. OLSEN: Okay. Okay.
8 MR. McBRIDE: I honestly don't know what
9 language they're written in.
10 MR. OLSEN: Okay.
11 MR. McBRIDE: The first language, the first
12 language.
13 MR. OLSEN: Yeah. I was just wondering if
14 there was anything lost in the translation.
15 MR. McBRIDE: Possibility. Could have been
16 written in French, of course.
17 MR. OLSEN: Okay. When would you do a
18 complete survey prematurely, like 18 months premature,
19 you know, only eight months into the two and a half
20 year period?
21 MR. McBRIDE: If you were doing -- suppose
22 you were completely retubing a boiler and everything
23 was opened, you may very well just take advantage just
24 to tread it. I'll use -- I'll use -- use the same word
25 as you, complete. I know it's the incorrect word, but
26 you may very well take advantage to do it then because
27 it's a convenient time and, you know, it can be used to
28 the others' benefit, even though it is a short time to
29 the next one.
30 MR. OLSEN: I'm going to ask this question.
31 I've been asking it of a lot -- most everybody, but do
32 you have any historical knowledge, not necessarily --
33 not necessarily the result of something you saw, but
34 have you ever heard about any recommendation to replace
35 the boilers on the Norway?
36 MR. McBRIDE: No.
37 MR. OLSEN: Because of thermal cracking?
38 MR. McBRIDE: No.
39 MR. OLSEN: Okay. Suppose you became aware
40 of an issue, in other words, suppose you became aware
41 that they had done welding on the inside of a drum, but
42 you did not see it. Okay? It's not something you
43 witnessed, but somehow you got knowledge through a
44 conversation. What would be your process then to -- or
45 what would you do?
46 MR. McBRIDE: I think -- I think we would
47 have to go to NCL in that case --
48 MR. OLSEN: Hm-hmm.
49 MR. McBRIDE: -- and say that we heard that

1 this had happened, could you please confirm it, if it's
2 true or not?

3 MR. OLSEN: And then, after that, how would
4 that proceed, if they said okay, we did, hypothetically
5 again?

6 MR. McBRIDE: They wouldn't do a lot.

7 MR. OLSEN: Okay.

8 MR. McBRIDE: Well, like -- like I said the
9 first time, we would -- the boiler would have to go in
10 for service --

11 MR. OLSEN: Hm-hmm.

12 MR. McBRIDE: -- until every aspect of it
13 had been fully documented and researched and considered
14 fit for service again.

15 MR. OLSEN: Okay. After a casualty like
16 experienced on the Norway, will BV go and inspect all
17 the other internals of the boilers or is that subject
18 to the owner or how will that be accomplished?

19 MR. McBRIDE: Well, of course, having an
20 accident of this nature raises questions about the
21 other boilers. So, I think it would be within the
22 discretion with NCL about carrying out an inspection of
23 the others.

24 MR. OLSEN: Okay.

25 MR. McBRIDE: Now, we -- we can't just insist
26 on things.

27 MR. OLSEN: I understand that. Okay. I've
28 got a few more questions.

29 How could -- how could the government,
30 meaning NTSB and Coast Guard, work or -- or assist BV
31 in developing a policy that requires detailed
32 inspection of all drums? How could we speed that
33 process up? Again, this is not just for NCL, this is
34 for any steamship.

35 MR. McBRIDE: All of industry, you mean?

36 MR. OLSEN: Yeah.

37 MR. McBRIDE: Yeah.

38 MR. OLSEN: How could we change your manual,
39 if we wanted to, or --

40 MR. McBRIDE: Yeah. Of course, in my job,
41 I'm not entitled to speak for what we should or
42 shouldn't do or not. I imagine this should be
43 approached to the higher-ups.

44 MR. OLSEN: The higher-ups. Okay. I realize
45 that you might not know, but are these inspection
46 guidelines common or similar across different
47 classification societies? Do they have one template?

48 MR. McBRIDE: The guidelines that we have are
49 -- are -- are not as common through the -- and Rena.

1 MR. OLSEN: And Rena?
2 MR. McBRIDE: Yeah.
3 MR. OLSEN: Okay.
4 MR. McBRIDE: Now, I don't know if they're
5 exactly the -- probably -- I don't know if they're
6 exactly the same as the other societies. I don't know
7 that.
8 MR. OLSEN: Hm-hmm. Is -- is there any
9 element in terms of classification society policies and
10 procedures that are no longer guidelines but rather
11 specific requirements?
12 MR. McBRIDE: Can you rephrase that?
13 MR. OLSEN: Okay. You have -- you have
14 guidelines. All right. You have guidelines, but then
15 there exists -- does there exist requirements that you
16 must do this as opposed to, you know, generally have to
17 look at this? Is there specific -- is there a place
18 where there are specific requirements in some of the
19 procedures that you do?
20 MR. McBRIDE: Certain things are -- are
21 required, yes.
22 MR. OLSEN: Yeah.
23 MR. McBRIDE: If you look at the scope of the
24 surveys carried out, they detail those.
25 MR. OLSEN: There are some definitive
26 requirements and then there are some actions that are
27 performed on guidelines, is that correct? Is that -- am
28 I -- maybe I'm --
29 MR. McBRIDE: What do you mean by guidelines?
30 You mean --
31 MR. OLSEN: Well, I -- we have -- we have
32 federal regulations and they say you must do this.
33 Must.
34 MR. McBRIDE: Right.
35 MR. OLSEN: But then there's a whole bunch of
36 other things that maybe you don't have to but they're
37 just good guidelines or good marine practice, and I'm
38 wondering if that type of distinction exists in some of
39 the work that -- that the classification society does.
40 MR. McBRIDE: I don't recall anything like
41 suggestions.
42 MR. OLSEN: Yeah.
43 MR. McBRIDE: It's -- you've got a scope of
44 what you have to do. Of course, there many ways of
45 interpreting that.
46 MR. OLSEN: Okay. So, some of the work then
47 would --
48 MR. McBRIDE: For instance, we know -- we
49 know in an internal inspection, we have to inspect the

1 combustion chamber.

2 MR. OLSEN: Okay.

3 MR. McBRIDE: But it's not just a good idea
4 to do it.

5 MR. OLSEN: Yeah.

6 MR. McBRIDE: It's mandatory.

7 MR. OLSEN: Yeah. I guess you have mandatory

8 --

9 MR. McBRIDE: Yeah.

10 MR. OLSEN: -- items, but then there's also
11 discretionary items, is that correct then?

12 MR. McBRIDE: I'm not aware of any
13 discretionary items. I know we have a list of those
14 items that we do. We don't leave one out because we
15 don't feel like it. It's -- it's listed.

16 MR. OLSEN: Okay. All right. Thank you very
17 much.

18 PARTICIPANT: Just a follow-up on Ken's line
19 of questioning there.

20 Looking through this TNF-05 Boiler Complete
21 Surveys, some items are said -- are described as
22 "should". For example, inspection of the upper drum,
23 it says, "The survey should start here." It says,
24 "Surveyor should also look for cracks between holes in
25 the drum." Then it goes on to "in some cases, the
26 surveyor should hammer test casing plating. Any
27 plating found reduced should be renewed."

28 In some places, the word "must" is used and
29 that to me implies a more strict requirement that --
30 that action be taken.

31 So, are you saying that even though there's
32 in some places -- let me give you an example. "The
33 surveyors must remember that materials used in boilers"
34 -- "that materials used i boilers where the degree of
35 superheat is over 400 degrees", but again, are you
36 saying that must and should are really -- are not
37 distinctions in -- in the guidance or the level of
38 requirements placed on a surveyor, to your knowledge?

39 MR. McBRIDE: You know, when you're working
40 with -- with old equipment and old vessels, so many
41 gray areas, that a lot of it's left to the individual's
42 experience and, you know, knowledge about what to do.
43 It's hard to detail what a person should do in a, you
44 know, 20 or 30 years old item, you know. You can point
45 him in the right direction, but the bottom line is he
46 has to have some idea himself. I don't know if I'm
47 being very clear on that.

48 PARTICIPANT: Well, here's another example.
49 "The surveyor shall inspect the condition of the bow,

1 disks and seats, paying particular attention". If it
2 were to say should, would that be --

3 MR. McBRIDE: Yeah.

4 PARTICIPANT: -- guidance?

5 MR. McBRIDE: Okay. That's -- shall -- of
6 course, shall means that it's mandatory. It must be
7 done.

8 PARTICIPANT: If it had said the surveyor
9 should inspect the condition of the bow, disk, seat?

10 MR. McBRIDE: I would also -- I would also
11 interpret should there as has to be done.

12 PARTICIPANT: Okay.

13 MR. McBRIDE: Yeah.

14 PARTICIPANT: So, -- so, generally, shall and
15 should are -- are pretty much synonymous in your
16 interpretation of the guidance?

17 MR. McBRIDE: Yeah. Yeah. I interpret
18 should as you do it.

19 PARTICIPANT: Okay. Do you know if the same
20 understanding of -- of the guidance is -- is understood
21 or is -- is common to all your surveyors?

22 MR. McBRIDE: I think so.

23 PARTICIPANT: Okay.

24 MR. McBRIDE: I believe so.

25 PARTICIPANT: I'm sorry to repeat the
26 question, but as part of the complete boiler survey or
27 what we're now calling internal and external
28 examination, I believe, is the hydrotest normally part
29 of that?

30 MR. McBRIDE: Not necessarily.

31 PARTICIPANT: Not necessarily. Only if other
32 repairs have been done and you need to prove their
33 integrity?

34 MR. McBRIDE: Right.

35 PARTICIPANT: But if no repairs have been
36 done, then you would not --

37 MR. McBRIDE: It does not have to be done
38 according to our -- our --

39 PARTICIPANT: Thank you.

40 Does BV provide specialized training to its
41 surveyors in the recognition of cracks and the -- and
42 the importance of cracks in -- in boiler parts?

43 MR. McBRIDE: As a formal training, I would
44 say not in -- not in very great depth, no. But once a
45 crack is found, of course, then it has to be
46 researched, not necessarily by that same surveyor, but
47 it has to be followed up on.

48 PARTICIPANT: But as far as you know, being
49 able to see what a crack is and its significance, --

1 MR. McBRIDE: No.
2 PARTICIPANT: -- it is -- I would think, you
3 know, it's kind of a skill.
4 MR. McBRIDE: Yes.
5 PARTICIPANT: Okay. And -- and do you --
6 does BV provide -- I'm not trying to badger you or
7 anything. I was just trying --
8 MR. McBRIDE: No.
9 PARTICIPANT: -- to get a clear understanding
10 of -- of what kind of -- of guidance or training that
11 the surveyors receive in this area.
12 MR. McBRIDE: Well, if the surveyor sees a
13 crack, we don't want -- we don't want the surveyor to
14 take this responsibility of deciding is it -- is it
15 sort of benign. We don't want that. We want it
16 reported and followed up on in-depth and we get
17 specialists in to follow up on that.
18 So, to -- to try to give somebody a full
19 education on all these different aspects of a crack,
20 you know, it's -- it's -- you may be fooling yourself.
21 You've got the full point across and maybe you
22 haven't. So, it's better just to -- to leave it like
23 it -- like it is at the moment and have real experts
24 up.
25 PARTICIPANT: Okay. And you had talked about
26 burner safety devices being checked as part of the
27 annual --
28 MR. McBRIDE: Yes.
29 PARTICIPANT: -- boiler --
30 MR. McBRIDE: Yeah.
31 PARTICIPANT: -- survey, and would these
32 burner safety devices also be checked as part of the
33 complete survey?
34 MR. McBRIDE: Yes, because -- because the
35 external survey is done as well.
36 PARTICIPANT: Okay. And is -- is that -- is
37 that term synonymous with the check of the automation
38 system? Just for my understanding for the boiler.
39 MR. McBRIDE: Well, it is -- it is a part of
40 it, yes.
41 PARTICIPANT: And the guidance to the
42 surveyor in performing the burner safety devices check,
43 is there some kind of a checklist that he uses in doing
44 this exam?
45 MR. McBRIDE: It's covered in our -- in our
46 instruction for -- for carrying out surveys of the
47 boilers.
48 PARTICIPANT: Would it be this -- this
49 instruction here?

1 MR. McBRIDE: Well, it may be there. I know
2 it's -- I know it's on the CD-ROM. I don't know if
3 it's in there or not.

4 PARTICIPANT: But is there also some kind of
5 a checklist that the surveyor would use to kind of
6 guide him in -- in testing safety devices?

7 MR. McBRIDE: No, there's not a specific
8 checklist, no.

9 PARTICIPANT: Okay. That's all I have for
10 now.

11 Brian?

12 MR. CURTIS: I'm all set. Thank you.

13 MR. FOONG: Chris Foong, NCL.

14 Roy, I just want to verify. Do you have a
15 steam license?

16 MR. McBRIDE: I have a boiler license.

17 MR. FOONG: Okay.

18 MR. McBRIDE: When I first went to sea, I
19 sailed on many motor ships which were completely steam,
20 although --although they were Scotch boilers, but the
21 generators and pumps and all were all steam.

22 MR. FOONG: Okay. Thank you.

23 MR. RILEY: John Riley.

24 Do you have any other qualifications, please,
25 Mr. McBride, besides the chief's motor? Any degrees or
26 --

27 MR. McBRIDE: I have a -- I have a diploma in
28 mechanical engineering.

29 MR. RILEY: What?

30 MR. McBRIDE: Called National Diploma of
31 Mechanical Engineering.

32 MR. RILEY: Order of National?

33 MR. McBRIDE: Order of National Diploma of
34 Mechanical Engineering.

35 MR. RILEY: OND Mechanical Engineering?

36 MR. McBRIDE: Yeah.

37 MR. RILEY: Thank you.

38 MR. McBRIDE: Yeah.

39 MR. RILEY: Thank you.

40 MR. OLSEN: This is Ken Olsen.

41 This kind of pertains to some of your -- BV's
42 outreach to its member companies. Are you aware of any
43 products or literature, documents of any kind, that may
44 have been sent to your customers, you know, in the
45 course of your relationship with BV that might have
46 dealt with stress fractures and thermal fracturing?

47 ABS has their own bulletin. Some of the other
48 class societies put out their own products for their
49 customers that talk about safety issues.

1 MR. McBRIDE: Yeah. I'm trying to think. Of
2 course, we dispatch all over -- all over the rules to
3 the customers.

4 MR. OLSEN: Hm-hmm.

5 MR. McBRIDE: The technical notes that we
6 have are available, too. Whether we send them out on a
7 --

8 MR. OLSEN: On a routine --

9 MR. McBRIDE: On a routine --

10 MR. OLSEN: These technical notes, what are
11 they? Just observations, safety observations?

12 MR. McBRIDE: They're more -- they're much --
13 some of them are quite in-depth, you know, on -- on the
14 topic that it's describing.

15 MR. OLSEN: Okay. Very good.

16 PARTICIPANT: Tom, I've got a couple
17 questions.

18 Does the -- does Bureau of Veritas represent
19 the Government of the Bahamas in the case of the
20 Norway?

21 I got that backwards.

22 Okay. So, do you issue the passenger ship
23 safety seal directly?

24 MR. McBRIDE: Yes. Yes, we do.

25 PARTICIPANT: Okay. So, you have really two
26 roles then, both as a class society and as a flag
27 representative, correct?

28 MR. McBRIDE: Yes.

29 PARTICIPANT: Okay. Within your class rules,
30 do you or your surveyors have the ability to go on
31 board a vessel without notification of the ship owner
32 for any reason?

33 MR. McBRIDE: No.

34 MR. OLSEN: Okay. Is there any different in
35 your flag representative authority to do so?

36 MR. McBRIDE: For what reason are you
37 thinking of?

38 MR. OLSEN: Well, for example, if there was
39 information received regarding the defect on the vessel
40 or unauthorized repairs, --

41 MR. McBRIDE: Yes.

42 PARTICIPANT: -- would your surveyor have the
43 ability to go out --

44 MR. McBRIDE: We would -- we would -- we
45 would -- our procedure would be to contact the company.

46 PARTICIPANT: Okay. You had mentioned that
47 earlier.

48 MR. McBRIDE: And say to them, look, we've
49 had this report. We have -- we feel we have to go on

1 board to investigate it, and I would say that the
2 companies would always say go ahead.

3 PARTICIPANT: Okay. Well, was there any
4 broader authority as a flag representative than you
5 from your own class rules to do so?

6 MR. McBRIDE: I don't think so. We don't
7 interpret like that either. You know, we -- we don't
8 -- you know, we don't feel that we have the right to go
9 on board a ship without the owner's -- we don't have
10 the right actually without the owner's agreement and
11 knowledge.

12 PARTICIPANT: Okay.

13 MR. McBRIDE: I think that's -- would that be
14 fair?

15 PARTICIPANT: Yes.

16 PARTICIPANT: Okay. Under either your class
17 rules or whether -- first of all, are there any
18 additional rules that the Government of the Bahamas has
19 given to Bureau of Veritas as the flag representative?

20 MR. McBRIDE: Well, all -- all the flags have
21 additions of their own, in addition to the -- the basic
22 source requirements. So, then they have not -- not
23 very much different, but some of them do.

24 PARTICIPANT: Okay. Under --

25 MR. McBRIDE: We have -- we have every -- for
26 every flag that we do service for, we have a whole
27 section of work that individual requirements have to be
28 carried out, in addition to the basic source
29 requirements.

30 PARTICIPANT: Okay. In the nature of what?
31 Surveys?

32 MR. McBRIDE: Well, it could be a number of
33 -- a number of primary suits carried or --

34 PARTICIPANT: Oh, okay.

35 MR. McBRIDE: -- this kind of thing.

36 PARTICIPANT: Okay. So, technical rules?

37 MR. McBRIDE: Yeah.

38 PARTICIPANT: That's more of a procedural
39 issue.

40 Under your class rules or any additional flag
41 rules, what's the application of the ship owner to
42 report to Bureau of Veritas regarding the defects of
43 the ship that they may have discovered on board the
44 ship?

45 MR. McBRIDE: Well, that's -- that's --
46 that's in -- in the rules. That's the agreement
47 between the owner and the society, is that anything has
48 to be reported to the -- to the class.

49 PARTICIPANT: Well, do they say anything? I

1 mean, I can envision, you know, minor problems with the
2 vessel versus a major problem. Is there any
3 distinction made there? In other words, where do they
4 draw the line?

5 MR. McBRIDE: I think if you're overhauling,
6 you know, a -- some -- some small pump, you wouldn't --
7 you wouldn't inform the class because the class would
8 be everlasting on board the ship. If you had a
9 breakdown of equipment that's some -- some damage, it's
10 the owner's obligation to -- to inform the class. I
11 don't think it's necessary for every -- every time they
12 pull a piston out of the engine. Of course not.

13 PARTICIPANT: Okay. You described the
14 organization of BV within North America. Is there any
15 -- are there any technical staff, in other words,
16 persons that review proposals for welding, things of
17 that nature? How is that actually done?

18 MR. McBRIDE: That would be done through our
19 -- through our Paris office.

20 PARTICIPANT: Paris?

21 MR. McBRIDE: Yeah.

22 PARTICIPANT: Thank you.

23 MR. ROTH-ROFFY: Okay. I think we've only
24 got a few more questions for you, sir, and then we'll
25 probably be done with you very soon.

26 MR. McBRIDE: All right.

27 MR. ROTH-ROFFY: While conducting boiler
28 internal examinations, do your surveyors have any
29 special tools that might assist them in gaining access,
30 visual access to -- to areas of the boiler that may not
31 be easily accessible?

32 MR. McBRIDE: No, we don't have them.

33 MR. ROTH-ROFFY: For example, -- sorry. For
34 example, a boiler scope or some sort of an extended
35 mirror or something like that?

36 MR. McBRIDE: No.

37 MR. ROTH-ROFFY: So, you normally don't have
38 or use those? Actually, it's two questions. You don't
39 have them. Do your surveyors ever use such special
40 tools?

41 MR. McBRIDE: If there's any tools required,
42 we would -- we would -- we would like to use a
43 subcontractor to -- to carry out that work. Like
44 radiography, for example. It's all -- it's all done by
45 a subcontracting company.

46 MR. ROTH-ROFFY: Okay. Are you aware of any
47 special tools that might assist your surveyors in
48 getting access to those -- those water drums and water
49 wall headers to, you know, really inspect a little

1 deeper in than -- than you could see from the outside?
2 MR. McBRIDE: I'm sure there are, but I don't
3 know off the top of my head what it is.
4 MR. ROTH-ROFFY: Okay. Brian?
5 MR. CURTIS: No questions.
6 MR. RILEY: John Riley, NCL.
7 Are there any other steam-driven vessels
8 whose main boilers are steam turbines that come into
9 Miami that BV surveys on a fairly regular basis?
10 MR. McBRIDE: I'm trying to think. Not --
11 not now.
12 MR. RILEY: How far back would you have to go
13 to --
14 MR. McBRIDE: Two years ago. Some of the
15 small ships, we used to do -- have some ships with
16 Premier Cruise Line. Several of theirs were
17 steamships.
18 MR. RILEY: Right.
19 MR. McBRIDE: And pretty much most of those
20 are gone now. A couple of them sat in Freeport, but
21 they don't -- certainly don't regularly come to Miami.
22 MR. RILEY: So, -- so, none of your surveyors
23 then are surveying steam -- main steam boilers and
24 steam vessels on a regular basis in this day and age
25 then?
26 MR. McBRIDE: No.
27 MR. RILEY: Thank you. Thank you.
28 Maybe two last questions. Do you have any
29 idea what happened on board -- what might have
30 contributed to the casualty on board the vessel?
31 MR. McBRIDE: I've seen the results, but I've
32 no idea what happened.
33 MR. RILEY: Okay. Have you been or have you
34 seen on other ships similar casualties with similar
35 results?
36 MR. McBRIDE: No.
37 MR. RILEY: Okay. So, you cannot comment on
38 any of the cause, possible cause?
39 MR. McBRIDE: No.
40 MR. ROTH-ROFFY: Okay. Okay. I'd like to
41 just follow up on -- on John Riley's question regarding
42 the surveyors and steam vessels. In particular, main
43 propulsion boilers.
44 You said that you -- there's not much work
45 here in Miami in the past few years. Do you have an
46 understanding of -- of how -- how many steamships are
47 calling in -- into the ports serviced by BV surveyors?
48 Just to get an idea of what percentage or numbers that
49 are steam vessels.

1 MR. McBRIDE: The only -- the only one at the
2 moment is -- is the Norway.

3 MR. ROTH-ROFFY: To your recollection, any
4 other ports that BV surveyors are -- are doing work
5 that -- there's really no other steam vessels?

6 MR. McBRIDE: No steam vessels. Well, no.
7 We do -- we do have some -- the Ellen G tankers go into
8 Boston, like even -- even Mustafa. I think -- I think
9 -- I may not be correct, if that's a steamship or not.

10 MR. ROTH-ROFFY: Okay. All right. Roy, we
11 thank you very much for coming down and talking to us.
12 You've been very helpful.

13 That will conclude our interview of Mr. Roy
14 McBride. The time is about 2:15.

15 Thank you, sir.

16 MR. McBRIDE: Thank you.

17 (Whereupon, at 2:15 p.m., the Investigative
18 Interview of Roy McBride was concluded.)

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