

Deposition Testimony of:

David McKay

Date: May 11, 2011

Created by:



www.indatacorp.com

Page 13:13 to 13:16

00013:13 DAVID MCKAY,
14 after having been first duly sworn by the
15 above-mentioned Certified Court Reporter,
16 was examined and testified as follows:

Page 13:23 to 14:03

00013:23 Q. And for the record, would you
24 state your name?
25 A. Yes. My name is David McKay.
00014:01 Q. Spell -- how do you spell your
02 last name?
03 A. It's M-C-K-A-Y.

Page 14:24 to 15:24

00014:24 Q. And since 1996, while you've
25 resided in Houston, have you been an
00015:01 employee of DNV?
02 A. Yes, sir.
03 Q. And DNV stands for?
04 A. Det Norske Veritas.
05 Q. And they are located in? Their
06 corporate office is where?
07 A. It's in Oslo, Norway.
08 Q. All right. And they have other
09 offices, regional offices?
10 A. Oh, yes, sir. All over the
11 world.
12 Q. All right. Houston is one?
13 A. Houston is the divisional office
14 for Division of Americas and Sub-Saharan
15 Africa.
16 Q. Is the divisional office of
17 what? I didn't hear you.
18 A. For our -- we're organized
19 geographically into divisions.
20 Q. All right.
21 A. So the Houston office or the
22 Katy offices are divisional offices --
23 divisional office for Division of Americas
24 and Sub-Saharan, Africa.

Page 16:08 to 16:11

00016:08 Q. Give me an estimate. How many
09 rigs offshore is the Houston division in
10 charge of or overseeing?
11 A. Approximately 15 -- 20 rigs.

Page 17:08 to 18:08

00017:08 Q. Okay. How many surveys and
09 audits do you believe you've done?
10 A. Probably hundreds. I couldn't
11 put a number on it.
12 Q. Okay. Before you came to
13 Houston in 1996, give us your background,
14 and tell us what you were doing, up to
15 1996.
16 A. Okay. I graduated from
17 university in 1985. I started working for
18 a shipyard in Scotland, which is my home
19 country, a company called Govern Ship
20 Builders, and I worked for them for about
21 five years. And then I joined DNV and
22 worked in the Aberdeen office for five and
23 a half years, up until the end of 1995,
24 which is when I moved to the States.
25 Q. All right. When you were in the
00018:01 Aberdeen office, did you have
02 responsibility, or did you assist or
03 prepare audits for offshore drilling rigs
04 in the North Sea?
05 A. No.
06 Q. Have you ever had any experience
07 in drilling an oil well?
08 A. No.

Page 18:22 to 19:16

00018:22 Q. All right. Have you examined
23 blowout preventers on offshore drilling
24 rigs?
25 A. I don't -- I don't recall any
00019:01 details of --
02 Q. Have you ever seen a BOP?
03 A. Yes, I've seen a BOP.
04 Q. You've obviously never seen a
05 BOP underwater?
06 A. Just perhaps on a video.
07 Q. All right. Do you know whether
08 or not on the Deepwater rig, Horizon, DNV
09 ever inspected the BOPs?
10 A. I don't know.
11 Q. You didn't; did you?
12 A. No.
13 Q. Do you ever recall anyone from
14 DNV ever examining the BOPs?
15 A. I have no personal knowledge of
16 that.

Page 21:17 to 22:08

00021:17 Q. What is your job?

18 A. My job, I'm a marine surveyor.
 19 Q. You're what?
 20 A. I'm a marine surveyor.
 21 Q. You're a marine surveyor. What
 22 do you do as a marine surveyor?
 23 A. I do marine surveys.
 24 Q. Of what?
 25 A. Class vessels in operation.
 00022:01 Q. Do you inspect offshore drilling
 02 rigs with respect to safety?
 03 A. I have in the past done that,
 04 yes.
 05 Q. Do you inspect offshore drilling
 06 rigs with respect to impact on the
 07 environment -- on environmental issues?
 08 A. Yes, I've done that in the past.

Page 23:10 to 23:15

00023:10 Q. Have you ever been on the rig,
 11 the Horizon rig?
 12 A. I've been onboard a rig called
 13 the Deepwater Horizon.
 14 Q. How many times?
 15 A. Two occasions.

Page 24:20 to 25:13

00024:20 Q. Recall in terms of the date or
 21 the year, the month, the planet that you
 22 were on the Deepwater Horizon?
 23 A. It was in 2005.
 24 Q. And what was the occasion?
 25 A. It was to perform an ISM audit.
 00025:01 Q. Now, what is that?
 02 A. What is an ISM audit?
 03 Q. Sure.
 04 A. It's a -- it's a verification
 05 audit to confirm compliance with ISM Code.
 06 Q. And it's to confirm compliance
 07 with what?
 08 A. The ISM Code.
 09 Q. All right. What does the ISM
 10 state, as far as you recall, with respect
 11 to rig safety?
 12 A. It has a number of things to say
 13 about -- about the safety of vessels.

Page 25:23 to 27:13

00025:23 Q. All right. All right. I guess
 24 we'll just go through it.
 25 Is the ISM the standard for

00026:01 safety management?
02 A. It's a standard for safety
03 management.
04 Q. All right. For safety
05 management and operation?
06 A. It's a standard -- an
07 international standard for safety
08 management and protection of the
09 environment.
10 Q. And pollution prevention?
11 Right?
12 A. Yes.
13 Q. To receive an ISM certificate, a
14 vessel has to have a safety plan; does it
15 not?
16 A. Can you define what you mean by
17 safety plan?
18 Q. How about a safety management
19 system.
20 A. Yes, that's a pre-requisite.
21 Q. Okay. Did the Deepwater Horizon
22 have to have a safety management system?
23 A. A safety management system
24 regarding that vessel was -- was actually
25 owned by the company rather than the
00027:01 vessel.
02 Q. Yes, sir.
03 A. So the safety management system
04 resides in the owning company or the
05 managing company of the vessel
06 specifically.
07 Q. So that was BP?
08 A. That was -- no, the owner of the
09 vessel.
10 Q. And that was Transocean?
11 A. I don't recall the exact owner
12 of the vessel, but Transocean operated the
13 safety management system.

Page 28:19 to 28:24

00028:19 Q. So you don't -- as I said, you
20 don't know who was responsible for running
21 or operating that rig; do you?
22 A. No, I don't -- I don't believe I
23 can answer that with any degree of
24 certainty.

Page 30:02 to 30:23

00030:02 Do you recall what kind of audit
03 you did in '05?
04 A. I did an ISM audit. I don't
05 recall whether I also did an ISPS audit. I

06 don't remember.
07 Q. Okay. How often are audits
08 required? The ISM audits.
09 A. ISM audits?
10 Q. Yes, sir.
11 A. They're required approximately
12 every two and a half years. The validity
13 of the ISM certificate is five years, and
14 there's an intermediate audit that takes
15 place between the second and third
16 anniversary of the validity of the
17 certificate. So somewhere between -- so
18 that the mid point would be two and a half
19 years. So approximately --
20 Q. So rough --
21 A. -- every two and a half year.
22 Q. Every two and a half years?
23 A. Yes, sir.

Page 32:14 to 33:09

00032:14 Q. Okay. You said you were a
15 surveyor or the chief surveyor?
16 A. That's my job title, chief
17 surveyor for --
18 Q. What?
19 A. Regional chief surveyor for
20 mobile offshore units.
21 Q. All right. MOU class support,
22 what does that mean?
23 A. My job title is regional chief
24 surveyor for mobile offshore units for the
25 region --
00033:01 Q. All right.
02 A. -- North America.
03 Q. And I think you've said already,
04 your degree is in naval architect?
05 A. I didn't say that, but, yes, it
06 is.
07 Q. From where?
08 A. From the University of
09 Strathclyde in Oslo.

Page 34:10 to 34:17

00034:10 Q. All right. In conducting an ISM
11 audit, do you have the responsibility to
12 report near misses?
13 A. No, I don't believe so.
14 Q. You don't believe you had the
15 responsibility to report accidents that
16 potentially could blow up the rig or cause
17 death to people?

Page 34:20 to 34:22

00034:20 THE WITNESS:

21 An ISM audit is a review of the
22 management system.

Page 39:15 to 40:02

00039:15 Q. My question was: Does the ISM
16 report or audit report on rig safety,
17 critical equipment, and whether or not it
18 is functioning properly or not functioning
19 properly?

20 A. The ISM audit report is a report
21 on the compliance of the safety management
22 system with the requirements of the ISM
23 Code.

24 Q. Does that have anything to do
25 with rig critical, safety equipment? Yes
00040:01 or no?

02 A. Yes, it does.

Page 41:04 to 41:09

00041:04 Q. No. The question was: You
05 don't care? It's not -- you don't believe
06 that you have to report on a BOP system,
07 its rig safety critical equipment, about
08 whether or not it's operable or not
09 operable?

Page 41:13 to 41:15

00041:13 Q. In other words, if it was
14 operable, you wouldn't report it; if it
15 wasn't operable, you wouldn't report it?

Page 41:19 to 42:13

00041:19 Q. It does not go into your ISM
20 audit?

21 A. The -- as I've stated already,
22 the ISM audit is a review of the management
23 system covering safety and pollution
24 prevention.

25 Q. And not critical safety
00042:01 equipment?

02 A. It's not --

03 Q. Is that what you're saying?

04 A. The ISM audit is not focused
05 towards condition of hardware onboard the
06 rig. That's the function of other

07 inspection authorities onboard. For
08 example, class.
09 Q. But it's not a function of DNV;
10 is that correct?
11 A. In this -- in this case, to do
12 with ISM, no, it's not. The ISM audit is a
13 management system audit.

Page 46:15 to 46:18

00046:15 Q. Do you recall whether or not
16 during your preparation of audits, or other
17 audits prepared by DNV, for the Deepwater
18 Horizon any reference to any blowouts?

Page 46:22 to 46:22

00046:22 No.

Page 46:24 to 47:05

00046:24 Q. Do you recall -- the same
25 question. In other words, in your
00047:01 preparation of an audit, ISM audit on the
02 Deepwater Horizon, or any other audits on
03 the Deepwater Horizon by DNV, any reference
04 to a complete loss of electrical power
05 where all the power in the rig went off?

Page 47:09 to 47:09

00047:09 No.

Page 47:11 to 47:15

00047:11 Q. Okay. When you were on the
12 Deepwater Horizon in '05 and '07, do you
13 recall conversations with any BP employees
14 or Transocean employees about rig safety?
15 A. Not specifically.

Page 52:15 to 53:02

00052:15 Do you recall whether or not
16 asking anyone on the Deepwater Horizon
17 whether or not the the BOP system was --
18 was operable or not?
19 A. Don't recall.
20 Q. Do you recall whether or not you
21 asked about whether or not there were any
22 leaks in the BOP system?
23 A. Don't recall.

24 Q. Do you recall whether or not
25 asking anyone if any alarms were turned on
00053:01 or turned off relative to operation or
02 function of the BOP?

Page 53:06 to 53:06

00053:06 I don't recall.

Page 53:11 to 53:19

00053:11 Do you recall whether or not you
12 asked whether or not the monitoring systems
13 for returns on drilling mud or well
14 pressures were operable or not?
15 A. Don't recall.
16 Q. Do you recall asking whether or
17 not any of the emergency system functions
18 on the BOP were bypassed on the control
19 panels for the BOP?

Page 53:23 to 53:23

00053:23 I don't recall.

Page 55:07 to 56:02

00055:07 Q. You know what an EDS system is,
08 with respect to the BOP?
09 A. I believe that's emergency
10 disconnect system.
11 Q. Yes, sir. Did you ask anyone
12 whether or not that was operable?
13 A. I have no specific recollection.
14 Q. Okay. That's not something you
15 would ordinarily do?
16 You're actually looking for --
17 into the management system itself?
18 A. That's correct.
19 Q. Not necessarily the nuts and
20 bolts of operation of the rig, per se?
21 A. That's correct. That's --
22 Q. Is that right?
23 A. Yes, that's correct.
24 Q. What is the difference between
25 what I just said, the nuts and bolts
00056:01 operation of the rig, per se, and the
02 management system?

Page 56:06 to 56:25

00056:06 Q. They're similar. There's got to

07 be some point in which the management
08 system notices that the maintenance is not
09 good or the maintenance on the rig is poor,
10 or there's something here that's wrong with
11 this rig that needs to be repaired.

12 I mean, that management system
13 has got to get into that somehow?

14 A. Yes. Obviously, if the -- if
15 the rig is in a poor condition, or the
16 maintenance is obviously not being done, or
17 if there's multiple pieces of equipment not
18 working properly, then the management
19 system has failed, obviously. Because the
20 safety management system is supposed to
21 ensure that the maintenance is done
22 correctly and the equipment --

23 Q. All right.

24 A. -- especially safety equipment
25 is --

Page 57:09 to 57:22

00057:09 A. Especially the -- the equipment
10 that's -- that's considered, with respect
11 to ISM Code, important with regard to
12 safety and pollution prevention.

13 Q. Okay. Do you recall whether or
14 not DNV, whether or not you, in your audit,
15 or any other DNV audits you may have read
16 on the Horizon, was critical of the
17 maintenance of the rig?

18 A. I believe in one of my audits I
19 made a notation about some issues with some
20 overdue maintenance.

21 Q. You did?

22 A. I believe so.

Page 60:02 to 60:19

00060:02 Q. So who chooses who the auditor
03 will be?

04 A. That's decided typically by the
05 rig owner or rig manager -- rig management
06 company. I don't mean an individual. I
07 mean -- you know, sometimes the rigs are
08 owned by one company and managed by
09 another.

10 Q. Okay.

11 A. So the company who's responsible
12 for the day-to-day operation of the rig, be
13 it the owner or be it a management company,
14 are typically responsible for engaging the
15 ISM auditing company.

16 Q. All right. So, in effect, the

17 company that is going to be audited chooses
18 the auditor? It's not necessarily an
19 independent, third-party appointed auditor?

Page 60:22 to 60:25

00060:22 EXAMINATION BY MR. MATTHEWS:
23 Q. As far as you're aware of?
24 A. No. It's -- it's the owner's
25 selection.

Page 62:20 to 63:01

00062:20 And the ISM covers mobile
21 offshore drilling units; right?
22 A. Yes.
23 Q. All right.
24 A. Certain -- certain ones. Let's
25 qualify there. They have to be
00063:01 self-propelled.

Page 63:17 to 65:10

00063:17 Q. All right. A while ago I
18 referred to -- we were referring to the ISM
19 Code, and I'm going to show you the code
20 that's been marked as Exhibit 938, and I'm
21 going to give you a copy of it.
22 A. Okay.
23 Q. And you've been referring to an
24 ISM management code; have you not?
25 A. Yeah. The ISM Code is a code
00064:01 for safety management.
02 Q. It's safety management; isn't
03 it? Not just management; it's safety
04 management?
05 A. Yes.
06 Q. And this sets forth all the
07 codes, the rules, the regulations with
08 respect to safety maintenance and what --
09 what should be done, as far as complying
10 with whatever this code is; right?
11 A. Yes. It contains the
12 requirements of the code.
13 Q. Would you look at page -- where
14 is that document -- page 36 of Exhibit 938.
15 Do you have it?
16 A. Yes, sir.
17 Q. All right. It says: The
18 administration is responsible for verifying
19 compliance with the requirements of the ISM
20 Code and for issuing documents of
21 compliance to companies and safety

22 management certificates to ships.
 23 Did I read that correctly?
 24 A. Yes, sir.
 25 Q. All right. The "administration"
 00065:01 is whom?
 02 A. The administration is the flag
 03 state.
 04 Q. All right. That's Panama in
 05 this instance -- no, Marshall Islands, I
 06 guess. Isn't that right?
 07 A. As far as the Deepwater Horizon
 08 is concerned, it, at one time, was flagged
 09 with Panama. It changed flag to the
 10 Marshall Islands at some point in the time.

Page 65:14 to 68:15

00065:14 Q. And who, on behalf of the
 15 Marshall Islands, is responsible for
 16 verifying compliance with the requirements
 17 of the ISM Code?
 18 A. That's -- that's DNV. DNV is
 19 authorized by the Marshall Islands to act
 20 on their behalf in this case.
 21 Q. Okay. And look at page 47,
 22 2.11.
 23 A. Yes, sir.
 24 Q. To comply with the requirements
 25 of the ISM Code, companies should develop,
 00066:01 implement, and maintain a safety management
 02 system.
 03 And then it goes on: To ensure
 04 that the safety and environmental
 05 protection policy of the company is
 06 implemented. The company's policy should
 07 include the objectives defined by the ISM
 08 Code.
 09 Do you know what those
 10 objectives are that are defined by the ISM
 11 Code?
 12 A. Not off heart, no.
 13 Q. Could you point them out to me?
 14 I think the code's in the front.
 15 A. I believe you're asking about
 16 the objectives of the safety management?
 17 Q. No. I'm asking about the code
 18 itself.
 19 A. The code, yeah. The objectives
 20 are listed on page 11.
 21 Q. Yes, it is. That's what I said,
 22 I think, that the code was in the front,
 23 right where you found it.
 24 A. Yes, sir.
 25 Q. And it's on page 11?
 00067:01 A. Yes, sir.

02 Q. Under objectives; correct?

03 A. Yes, sir.

04 Q. Okay. The objectives of the
05 code are to ensure safety at sea,
06 prevention of human injury or loss of life,
07 and avoidance of damage to the environment,
08 in particular, the marine environment and
09 the property.

10 Safety management objectives of
11 the company should provide for safe
12 practices and ship operation and a safe
13 working environment, assess all identified
14 risks to the -- to its ship's personnel and
15 the environment, and establish appropriate
16 safeguards, continuously improve safety
17 management skills, and so on.

18 The safety management system
19 should ensure compliance with mandatory
20 rules and regs, and then it goes on
21 further.

22 Page 12 lists the functional
23 requirements for a safety management
24 system, including instructions and
25 procedures to ensure safe operation of
00068:01 ships and protection of the environment.

02 Procedures for reporting
03 accidents and non-conformities, procedures
04 to prepare -- prepare for and respond to
05 emergency situations.

06 Did I read most of that
07 correctly?

08 A. Yes, sir.

09 Q. Okay. And that's what -- what
10 you would do, as an auditor, is go on a
11 ship or a vessel, like the Horizon, and
12 ensure that the safety management system of
13 whoever was in charge met those objectives
14 that I've just read on pages 11 and 12?

15 A. Yes, sir. That's correct.

Page 69:15 to 69:23

00069:15 Q. Okay. So you reviewed the
16 safety management system that was in
17 writing or on their -- is that correct?

18 A. Do you mean when I attended
19 onboard?

20 Q. Sure.

21 A. I didn't review the entire
22 safety management system from front to
23 back. That would've taken weeks.

Page 70:19 to 71:01

00070:19 Q. Do you recall if on the rig
20 there was a safety compliance officer?
21 A. I don't recall anyone that had
22 that specific job title.
23 Q. Okay. Do you recall, on the
24 rig, meeting with the designated person
25 from Transocean who was in charge of safety
00071:01 management system?

Page 71:05 to 73:15

00071:05 Q. Remember, we referred to a
06 couple of guys already.
07 A. Yes. As I said, the audit took
08 place quite was a long time ago. I don't
09 have specific recollection of meeting
10 individual people, but I am quite sure that
11 I met with those responsible for
12 maintaining the safety management system
13 onboard.
14 Q. Other than the documents and the
15 people, what would you -- or did you do
16 anything to ensure, for example, there was
17 a procedure to respond to an emergency
18 situation?
19 A. That's -- that's what are
20 specific requirements of the code, as you
21 just --
22 Q. Yes, sir.
23 A. -- read. Typically on vessels,
24 there's some kind of emergency response
25 manual which covers that requirement, and
00072:01 it should, of course, address all the
02 typical scenarios that you might face,
03 depending on the type of vessel.
04 Q. All right.
05 A. Yeah. So normally, in the
06 course of my audit, I verify that it
07 exists, first of all. It's onboard. It's
08 accessible to the crew and that they're
09 familiar with its contents and that, more
10 than not, that they actually, normally --
11 there's another requirement in the code
12 that they perform drills and exercises
13 related to emergency preparedness.
14 Q. Yes, sir.
15 A. So that the drills and exercises
16 they perform are realistic with respect to
17 the emergency response manual. There's no
18 point in training to respond to an
19 emergency that you probably might not face;
20 right? It's logical and sensible to train
21 and drill for scenarios that you're likely
22 to face.
23 So that -- that would be one of

24 the things that I would verify during my
 25 visit, is that they had in place procedures
 00073:01 of -- to conduct regular training exercises
 02 for typical emergency scenarios.
 03 For example, you know, loss of
 04 stability, a collision, fire onboard,
 05 helicopter crash, that type of thing.
 06 Q. All right.
 07 A. And that not only had they put
 08 procedures in place to have them and that
 09 they had plans to perform drills, but that
 10 they also, in fact, had recorded evidence
 11 that they had carried out those drills and
 12 that they had taken learnings from the
 13 drills and had fed them back into -- as a
 14 means for continuous improvement, which is
 15 another requirement you read there --

Page 73:18 to 74:04

00073:18 Q. So, did you read, or do you
 19 recall reading, anything in the literature
 20 that was onboard when you were conducting
 21 the audit that was given to you for you to
 22 read that had to do with well kicks,
 23 blowouts, oil or gas on the -- or an
 24 ignition on the rig floor -- oil and gas
 25 igniting on the rig floor?
 00074:01 Do you recall if there was any
 02 emergency procedure set up about what to do
 03 if you have a blowout incident?
 04 A. Okay.

Page 74:07 to 74:20

00074:07 THE WITNESS:
 08 As I mentioned before, the
 09 emergency preparedness or emergency
 10 response manual would typically cover the
 11 likely scenarios that you would face. So
 12 although I have no specific recollection of
 13 this particular one, I am -- I'm sure that
 14 it covered such an event as you described.
 15 EXAMINATION BY MR. MATTHEWS:
 16 Q. All right. Did you verify that
 17 the Deepwater Horizon, during your -- in
 18 your audit, did you verify that they were
 19 in compliance with the code?
 20 A. I did.

Page 81:20 to 82:24

00081:20 As far as you're aware of, if

21 you had any major incidents that you
22 reported in your audits as being a
23 nonconformity or non-compliance, did the
24 Horizon rig correct whatever non-compliance
25 or non-conformities there were?
00082:01 A. I don't -- I don't recall
02 issuing anything that would be designated
03 as a nonconformity or non-compliance to the
04 Horizon.
05 Q. Okay.
06 A. I believe that I issued some
07 minor observations to them. If I remember
08 correctly -- now, this, of course, is a
09 long time ago. But as you know, I had
10 occasion to testify before the JIT. So I
11 had familiarized myself with my reports
12 again a year ago.
13 My recollection is that,
14 certainly, some of the observations I had
15 made, they had already commenced addressing
16 those. They were aware of them even before
17 I documented them, and they had already
18 started to make corrective actions there.
19 So I guess the short answer is
20 yes.
21 Q. Okay. Have you ever read an
22 assessment by one particular officer of the
23 Coast Guard about your testimony or about
24 the value of the audits?

Page 83:03 to 83:18

00083:03 Are you referring to the recent
04 report that's been published by the Coast
05 Guard?
06 EXAMINATION BY MR. MATTHEWS:
07 Q. No.
08 A. No?
09 Q. No. It's just what a Coast
10 Guard officer said about the audit and its
11 value. Have you ever --
12 A. I recollect some remarks to that
13 effect during the -- the inquiry last year.
14 Q. Some remarks to what effect?
15 A. About value of audits. I don't
16 recall his specific comments.
17 Q. He said he didn't understand
18 what the value was; you remember that?

Page 83:21 to 83:25

00083:21 THE WITNESS:
22 I don't specifically remember
23 what he said. I just -- I remember when

24 you mentioned that phrase that it made me
25 recall that he had said something.

Page 84:22 to 85:22

00084:22 Q. All right. What audits do you
23 recall that you've done for the Horizon?
24 A. Me, specifically or DNV?
25 Q. You.
00085:01 A. Me, specifically?
02 Q. Yeah.
03 A. The only ones that I've
04 performed is ISM audits and ISPS audits.
05 Q. What is that?
06 A. The International Ship and Port
07 Security Code.
08 Q. That has to do with the security
09 code?
10 A. That is the security code. It's
11 also under an audit regime.
12 Q. That's not necessarily related
13 to safety of the rig or safety of the
14 equipment?
15 A. It --
16 Q. Try to keep the rigs secure so
17 nobody can damage it, I guess?
18 A. It's -- it's related to safety,
19 in that it's intended to protect the rig
20 from, for example, terrorists attacks,
21 unauthorized access, stowaways, that type
22 of thing.

Page 86:05 to 86:09

00086:05 Do you recall in '05 and '07 how
06 long you were on the rig each time?
07 A. I don't have a specific
08 recollection, but normally it's about --
09 these audits take about 24 hours onboard.

Page 87:06 to 89:24

00087:06 Q. Okay. And do you spend most of
07 that time, when you're working,
08 interviewing rig personnel for that?
09 A. Perhaps it would be useful for
10 you if I talked you through a typical --
11 Q. Absolutely.
12 A. -- course of events.
13 Q. Sure.
14 A. Normally, of course, as I've
15 mentioned to you, we'd arrive by
16 helicopter. So typically, the first thing

17 that happens when you arrive onboard is, of
18 course, security. They verify you -- you
19 are who you say you are. You have a
20 picture ID.
21 Then you have a safety briefing.
22 That's usually either a video or it's a
23 live briefing from the safety officer to
24 explain where the galley is, where your
25 mustard station is, where the life boats,
00088:01 what to do in the event of emergency, what
02 they are -- the different sounding alarms
03 mean, et cetera.
04 So your visits are then -- of
05 course, you get assigned to -- if you're
06 staying over night, you would get assigned
07 a cabin, bunk number, et cetera.
08 And then following that,
09 usually, I would go and meet with the
10 master and then -- and make plans to have
11 the audit kick-off meeting or opening
12 meeting. And that's typically a half hour
13 or so meeting that takes place with the
14 heads of each department onboard, where
15 we'd discuss the plan forward for the
16 audit, who will be -- we'd finalize the
17 kind of schedule of who will be interviewed
18 and when.
19 Of course, everybody onboard has
20 their normal duties to perform. So they
21 have to find time in their day to
22 accommodate the auditor. Sometimes people
23 are busy or not available at certain times.
24 Sometimes we have to wait until they're
25 actually off tour or off shift.
00089:01 And then at some point, usually
02 we would -- we may have to participate in a
03 drill or conduct one. Typically, there's
04 also a safety tour of the rig just to look
05 at the general condition of the vessel and
06 its safety arrangements.
07 But the large part of the day is
08 spent in interviews and associated review
09 of documentation that may be presented as
10 evidence of something that comes up during
11 the interview.
12 Q. Okay. And that includes the
13 maintenance records?
14 A. Typically, yes. Typically, it
15 would look into the maintenance records.
16 Q. Does it include the daily
17 drilling reports?
18 A. I -- I personally wouldn't go
19 into that level of detail with drilling
20 reports. It may be that I would verify
21 that they were being properly filed and

22 submitted to the relevant authorities, et
23 cetera, but I wouldn't sit down and review
24 them line by line, no. Absolutely not.

Page 91:07 to 92:02

00091:07 Q. What is -- I'm sorry. What is
08 there in that code that tells you what part
09 of this rig you want to look at?
10 A. Physically what part of it?
11 Q. Yeah. What part of the rig you
12 should be concerned with, with respect to
13 safety and/or emergency situations?
14 A. Well, I would think that all of
15 it would be of concern, that's easily
16 accessible.
17 Q. All right. Including the BOP?
18 A. Well, that's difficult to
19 access. It's typically deployed.
20 Q. But certainly you interviewed
21 somebody with respect to the BOP?
22 For example, I think Transocean
23 had, what, subsea BOP engineers or subsea
24 engineers that were in charge of the BOP
25 system.
00092:01 Did you talk to any of those
02 guys, if you remember?

Page 92:05 to 92:06

00092:05 THE WITNESS:
06 I don't remember.

Page 92:08 to 92:17

00092:08 Q. Okay. With respect to your
09 audit, would the BP well site leaders
10 normally sit in on part of it?
11 A. Some -- it might be sometimes
12 the company man, whoever it is --
13 Q. Yeah.
14 A. -- or whoever the leaseholder
15 is, might attend the opening meeting or the
16 closing meeting. Typically not, but it has
17 happened on occasion.

Page 93:09 to 94:14

00093:09 You've got a rig safety
10 management system in place, in writing.
11 You've got available to you rig personnel,
12 whoever it is, and there's someone --
13 somehow, some way you learn about a

14 hazardous incident or a near miss.
15 Are you relying on the rig
16 people themselves to tell you about the
17 incidents, or is there some way that this
18 is in some written record somewhere that
19 you should look at?
20 How does this come to your
21 attention?
22 A. Well, this is a hypothetical
23 situation you're talking about here, is it?
24 Or --
25 Q. Well, yes.
00094:01 A. Okay. Hypothetically, then,
02 it's -- it's difficult to answer that one.
03 It could be a combination of somebody
04 mentioning it. It's documented in a log
05 somewhere. I can't really --
06 Q. So let's don't make it
07 hypothetical.
08 A. Okay.
09 Q. Let's make it the Horizon rig.
10 A. Okay.
11 Q. Was there ever, as far as you
12 recall, reported to DNV a hazardous
13 condition or -- or a near miss?
14 A. I don't know the answer to that.

Page 95:02 to 95:10

00095:02 But are you familiar with
03 drilling a well that says -- that has a
04 difficult formation? Are you familiar with
05 the term "stuck pipe"?
06 A. Again, are we talking
07 hypothetically here?
08 Q. No.
09 A. No?
10 Q. Well, yeah. Sure.

Page 95:13 to 96:14

00095:13 THE WITNESS:
14 I think I -- I think -- I
15 believe I have an understanding of what the
16 term "stuck pipe" means. It means that the
17 pipe is stuck in the well. Right?
18 EXAMINATION BY MR. MATTHEWS:
19 Q. Yeah.
20 A. Okay. Hypothetically or --
21 Q. That's like most stuff about the
22 oil field, there's a reason oil's called
23 crude, because the only way you can get it
24 is to beat the hell out of the earth.
25 A. Okay.

00096:01 Q. I mean, it takes weight and
 02 turning it to the right. And it's just --
 03 that's the way you get to where the
 04 formation is that produces.
 05 So stuck pipe, yeah, you're
 06 right. Probably pipe stuck in a hole.
 07 A. Okay.
 08 Q. And it is.
 09 But, for example, would that be
 10 the type of incident that would be -- that
 11 you would expect to be reported to you, or
 12 you would expect to be able to find out
 13 about stuck pipe?
 14 A. I think --

Page 96:17 to 98:02

00096:17 THE WITNESS:
 18 I think, as an ISM auditor,
 19 you're looking, as I said before, at the
 20 management system. So it's more that --
 21 EXAMINATION BY MR. MATTHEWS:
 22 Q. It's the safety management
 23 system, not management system?
 24 A. Well, it's safety and
 25 environmental protection, if you really
 00097:01 want to define it.
 02 Q. All right. Good.
 03 A. To me, as an auditor, it's not a
 04 case if I -- I would expect that that would
 05 be reported to me as an auditor. I would
 06 expect that it had been documented
 07 according to the requirements of the safety
 08 management system and the relevant
 09 stakeholders informed of it.
 10 Q. Okay.
 11 A. According to the requirements of
 12 the safety management system and any
 13 applicable laws, codes, et cetera. So that
 14 would be what I would look for, is if it
 15 was --
 16 Q. Did you ever -- I'm sorry. I
 17 interrupted you again.
 18 A. That's okay. That had been
 19 properly documented and followed up.
 20 Q. All right. I understand that.
 21 So did you ever see that,
 22 reporting of any incidents with respect to
 23 the Horizon rig?
 24 A. With regard to specifically
 25 stuck pipe, as you've --
 00098:01 Q. Well, not -- just anything? Any
 02 incident?

Page 98:05 to 99:05

00098:05 THE WITNESS:

06 Well, let me say, again, that it
07 was some time ago when I was last onboard
08 that rig, and I don't have any specific
09 recollection of any specific incidents that
10 had taken place. But normally, as part of
11 my ISM audit on whatever vessel, I would
12 look at their incident log to see what
13 happened, how had they followed up, who
14 they informed, et cetera, to make sure the
15 system was working the safety management
16 system was working.

17 EXAMINATION BY MR. MATTHEWS:

18 Q. All right.

19 A. So, there may have been some
20 incidents that may have been, you know,
21 properly reported and followed up. I don't
22 recall.

23 Q. Well, if there are, they should
24 be in these audits?

25 A. I don't understand what you
00099:01 mean.

02 Q. If there are any incidents
03 reported, you would expect them to be
04 reflected in some of these audits; would
05 you not?

Page 99:08 to 99:09

00099:08 THE WITNESS:

09 Not necessarily.

Page 99:12 to 100:01

00099:12 THE WITNESS:

13 Not necessarily. I think
14 that -- as I said before, the -- the audit
15 report is a report on the compliance of the
16 company's safety management system with the
17 the requirements of the ISM Code.

18 EXAMINATION BY MR. MATTHEWS:

19 Q. Yeah.

20 A. The ISM Code requires that
21 hazardous occurrences and incidents are
22 followed up by the company.

23 Q. Requires that they be reported?

24 A. And followed up by the company.

25 So --

00100:01 Q. But they must be reported?

Page 100:06 to 100:21

00100:06 A. And so you wouldn't -- in an
 07 audit report, you wouldn't necessarily make
 08 specific references to incidents and
 09 hazardous occurrences. As long as the
 10 man -- safety management system was
 11 working, and that they had, in fact, been
 12 reported to the relevant people, you
 13 wouldn't actually document that.
 14 That would be a "tick," if you
 15 like, working correctly.
 16 Q. All right.
 17 A. Normally, on ISM audit reports,
 18 for me, any way, I would typically report
 19 my exceptions of -- to highlighting the
 20 deficiencies, not so much the -- the areas
 21 of compliance.

Page 121:15 to 122:16

00121:15 Q. And look at 5-B. And what is
 16 that?
 17 A. This is the audit report for the
 18 ship security audit, ISPS audit that took
 19 place onboard the Deepwater Horizon from
 20 2007, May 8th, 15th to 16th, it says.
 21 That's not a very good copy. That looks
 22 like 15th and 16th.
 23 Q. And, again, with the -- you're
 24 the DNV surveyor team; right?
 25 A. That's me, yes.
 00122:01 Q. Okay. And would you look at
 02 about three or four sheets in, and the
 03 sheet that's labelled, quote, survey,
 04 observation, and findings.
 05 A. Yes, sir.
 06 Q. Do you recall previously you had
 07 testified, in response to my question, that
 08 you thought that in some report you had
 09 referenced some failure of part of the rig
 10 to -- on the part of the rig to maintain
 11 their maintenance and do maintenance
 12 records.
 13 Is this what you're referring to
 14 on this page -- the observation No. 1.
 15 A. Yes. I believe this is -- this
 16 is what we were previously discussing, yes.

Page 123:12 to 125:02

00123:12 Q. Did you wonder about the quality
 13 of the safety or the maintenance or the
 14 training of the rig personnel, because
 15 there had been a large turnover of

16 employees?
 17 A. Is this, again, a hypothetical
 18 situation here? Are we talking --
 19 Q. No. This is real.
 20 A. There were -- you're saying
 21 there were --
 22 Q. On the Horizon?
 23 A. There were a large turnover?
 24 Q. Yes.
 25 A. I wasn't aware of a large
 00124:01 turnover of personnel. I think, looking at
 02 my audit report, I was generally pretty
 03 satisfied with the implementation of the
 04 safety management system. There were some
 05 minor observations that were made. No
 06 non-conformities were found.
 07 It seems like the safety
 08 management system was well implemented, and
 09 the rig was in pretty good condition, and
 10 the personnel were competent.
 11 Q. But the safety management
 12 system, as far as implementation, depended
 13 upon rig personnel and whoever was on that
 14 rig; did it not?
 15 A. Yes, it did.
 16 Q. All right. And 5-C, would you
 17 look at that?
 18 A. Yes, sir.
 19 Q. Which is May the 15th, '07.
 20 What is it?
 21 A. This is a -- this is the audit
 22 report, arising from the ISM audit that
 23 took place onboard the Deepwater Horizon in
 24 May of 2007, again on the 15th and 16th.
 25 It appears that's the the ISPS audit and
 00125:01 the ISM audit were conducted concurrently.
 02 That's not uncommon.

Page 125:10 to 125:12

00125:10 Q. Did you notice that there was
 11 virtually no training with respect to the
 12 BOP stack?

Page 125:15 to 125:16

00125:15 THE WITNESS:
 16 No, I did not.

Page 126:01 to 126:02

00126:01 Let's mark 5-A through D as
 02 Exhibit 1759.

Page 126:07 to 126:16

00126:07 Q. Did you have anything to do with
08 the DNV report on the blowout preventer?
09 A. I don't know which report you're
10 referring to.
11 Q. The DNV report for the United
12 States Department of the Interior, Forensic
13 Examination of Deepwater Horizon Blowout
14 Preventer.
15 A. Okay.
16 Q. Report dated March 2, '11?

Page 127:03 to 127:13

00127:03 Q. All right. What I asked was:
04 Did you have anything to do with this
05 report -- the preparation of it, the
06 writing of it, any investigation of the BOP
07 that led to the writing of the report, any
08 forensic testing of the BOP stack, anything
09 at all with respect to any input or writing
10 that made up this report?
11 A. No, sir.
12 Q. You weren't asked to do that?
13 A. No, I was not involved in it.

Page 137:02 to 138:06

00137:02 Q. First. DNV, the company you
03 worked for, has done a report and testing
04 on the blowout preventer on the Deepwater
05 Horizon after April 20, 2010.
06 Are you aware of that?
07 A. Yeah. I worked for DNV, USA,
08 Inc., which is a U.S. subsidiary of our
09 parent company. We have different legal
10 entities within the U.S. I'm not for a
11 hundred percent certain which of our
12 entities --
13 Q. Fair enough.
14 A. -- was responsible for that
15 report, but I'm aware of it.
16 Q. You're aware of it?
17 A. Yes, sir.
18 Q. Here's my question: Have you
19 had any part in it, input into it, role in
20 it, participation in it?
21 A. The report on the forensic
22 investigation?
23 Q. Right.
24 A. No, none.
25 Q. Yeah. The forensic testing and

00138:01 analysis and opinions and findings that
02 have been done after April 20, 2010, with
03 respect to the Deepwater Horizon blowout
04 preventer, you haven't been involved in
05 that?
06 A. I personally, no.

Page 138:13 to 139:08

00138:13 Q. Okay. So your real involvement
14 with the Deepwater Horizon was two
15 occasions in 2005 and 2007 when you did ISM
16 audits?
17 A. Not exactly. 2005 was an ISM.
18 Q. Okay.
19 A. I think 2007 was an ISM and then
20 an ISPS.
21 Q. Okay.
22 A. Yes, sir.
23 Q. All right. I think I remember
24 what an ISM is. But tell me what the ISPS
25 is again.
00139:01 A. Well, inter -- ISM is
02 International Safety Management, which is
03 covering safety on pollution prevention or
04 environmental protection, and ISPS is
05 International Ship and Port Security Code,
06 which is covering, like, the terrorism,
07 stowaways, security of the vessel from
08 unauthorized intrusion.

Page 140:13 to 141:02

00140:13 Q. Is an ISPS audit in any way
14 concerned with, or looking to, how well
15 control -- drilling well control is
16 implemented or executed?
17 A. That's not as far as the scope
18 of ISPS at all.
19 Q. Okay. So when you're doing your
20 ISPS office -- ISPS audit, you're not
21 looking to, gee, how do they activate the
22 blowout preventer? How do they do the
23 casing string? How did they do the
24 cementing?
25 You are not looking at those
00141:01 things?
02 A. No, sir.

Page 141:06 to 141:18

00141:06 Q. You said several times, if I've
07 understood you correctly, that you were

08 doing a safety management audit; namely,
09 you're verifying the existence and
10 protocols to make sure there's a safety
11 management system in place.
12 Do I understand that correctly?
13 A. Not exactly. I would -- I would
14 say that the agreement of the ISM audit is
15 to verify that the safety management system
16 is implemented correctly, it's functioning
17 onboard, and it's compliant within the
18 requirements of the ISM Code.

Page 142:01 to 142:11

00142:01 Q. And I asked you -- I suppose,
02 also, if I started asking you about
03 specifics about the choke lines or the kill
04 lines, you would not be able to give me
05 specific information about those?
06 A. Not in -- I mean, I know what
07 choke and kill lines are in general terms.
08 But in terms of exactly how they function,
09 when they function, when they're supposed
10 to be activated. I'm not an expert in the
11 drilling business.

Page 143:23 to 144:06

00143:23 Q. Okay. Now, my point's
24 different. My point is: You were not
25 trained in connection with oil and gas
00144:01 drilling operations or well control issues
02 or operational equipment that goes to oil
03 and gas drilling operations?
04 That's not part of your formal
05 training?
06 A. No.

Page 144:12 to 145:01

00144:12 The specific details of how
13 we're going to go about drilling an oil and
14 gas well, putting the specific equipment
15 down, what specific equipment we're going
16 to use, and what we're going to
17 specifically -- how we're going to
18 specifically operate it, is not things you
19 were looking at?
20 A. No. No. The actual means to
21 drill the well -- what size drill bit you
22 put down and the -- you know, the diameter
23 of the casing that's used and what weight
24 of mud and all that sort of thing, that's

25 not something that concerns me specifically
00145:01 as an ISM auditor.

Page 149:16 to 152:10

00149:16 Q. Okay. Now, the information that
17 you turn in -- and I assume you turn in a
18 report to the Marshall Islands?

19 A. Let me explain how -- how it
20 works in practice.

21 Q. Okay.

22 A. We're authorized by a flag
23 state, in this case the Marshall Islands --
24 prior to that Panama -- to perform these
25 audits on the flag state's behalf.

00150:01 Q. Right.

02 A. When we -- when we complete the
03 report, the report is passed -- initially,
04 a preliminary report is left onboard at the
05 completion of the audit.

06 Q. Okay.

07 A. And that's the --

08 Q. With who?

09 A. With the master.

10 Q. Okay. Go ahead. That would be
11 the captain of the vessel?

12 A. Yes, sir. It's one in the same
13 thing.

14 Q. Okay.

15 A. At the closing meeting for the
16 audit, which takes place after all the
17 interviews are finished and the
18 documentation review is completed and the
19 tour is completed and the audit is
20 finished, normally practice is for the
21 auditor to sit down with the management
22 team onboard the rig, the senior -- the
23 heads of each department -- the drilling
24 department, the casing department, the
25 engineering department, the maintenance

00151:01 department, the marine department, for
02 example -- and discuss the audit findings.
03 And we make sure that the people onboard
04 understood or understand what -- what has
05 been documented as findings, so that they
06 know, if necessary, how to follow them up.

07 And then a copy of that
08 preliminary report is left onboard, and
09 then the final report is sent to the
10 owner's organization onshore, and from
11 there passed to -- to the vessel.

12 A copy of the report is not sent
13 to the flag state. The flag state has
14 access to DNV's data base -- electronic
15 data base. They can have oversight of any

16 and all reports related to their flagged
17 vessels at any time. So that's how it
18 works in practices, is rather than --
19 sending them stuff, they have -- they have
20 access to go in and view it.

21 Q. Okay. Did I understand
22 correctly, your earlier testimony, that at
23 these meetings on the rig, that if the
24 company man wishes to attend, he is free to
25 attend?

00152:01 A. From my perspective?

02 Q. Correct.

03 A. As an auditor, I would have no
04 objection, whatsoever, of the company man
05 attending the opening or closing meeting.

06 Q. And you say -- or you have been
07 on audits where the company man did choose
08 to attend?

09 A. I believe -- I believe I have,
10 yes.

Page 153:15 to 153:24

00153:15 Q. Just repeat what you were just
16 saying.

17 A. The Marshall Islands and DNV
18 have a formal agreement which authorizes
19 DNV to act on Marshall Islands' behalf.
20 It's what we call a recognized organization
21 or RO. And as part of that agreement,
22 there's some systematics -- if you'd like
23 to call it that -- with regard to
24 reporting.

Page 154:12 to 155:09

00154:12 Q. Okay. All right. And at this
13 closing meeting -- after you've done your
14 audit, your ISM audit, at this closing
15 meeting, do y'all discuss what the audit
16 has found, including any observations, any
17 regular nonconformities, and probably other
18 areas that you think might need to be
19 addressed?

20 A. Yes. It's a full and frank
21 discussion.

22 Q. Okay. And -- but as far as
23 you're concerned, if the company man wanted
24 to attend that, hear your observations,
25 your judgments, your findings, your things

00155:01 you saw or heard, the company man would be
02 free to do so?

03 A. From my perspective?

04 Q. Right.

05 A. As an external auditor, I would
06 have no objection to that. Being that I
07 was there to audit the owner's safety
08 management system, it would be up to the
09 owner to invite in a third party. For

Page 170:24 to 171:04

00170:24 A. Yes. That's 1777, and it's the
25 audit report for the intermediate ISM
00171:01 audit, shipboard audit, taking place
02 offshore Gulf of Mexico, dated 2005, 29th
03 May -- I beg your pardon, 29th of June in
04 2005.

Page 171:09 to 171:18

00171:09 Q. And it consists of a number of
10 pages, including several observations?
11 A. That's correct.
12 Q. Okay. And then the next report?
13 A. The next report --
14 Q. Is document number -- exhibit
15 number?
16 A. Yes, 1778. It's -- it's a
17 report for a new ISM audit and a renewal
18 scope ISPS audit.

Page 172:08 to 172:17

00172:08 Q. And you conducted that audit?
09 A. Yes, from the 16th -- I'm sorry.
10 Beg your pardon, 15th through 16th of May,
11 2007, and that was a combined ISPS and ISM.
12 Q. And what was the exhibit number
13 on that again?
14 A. I'm sorry. It's 1778.
15 (Whereupon, the document
16 referred to was marked as Exhibit No. 1778
17 for identification.)

Page 172:19 to 173:23

00172:19 Q. And just chronologically
20 speaking, in 2010, in the spring of 2010,
21 were you scheduled or was another DNV
22 surveyor scheduled to go out in the
23 April -- March, April, May 2010 time frame
24 to do an interim survey?
25 A. Intermediate it would be, rather
00173:01 than an interim.
02 Q. Intermediate.
03 A. Yes. In fact, if you look back

04 at this -- back at the summary report that
 05 was issued in --
 06 Q. Give us the exhibit number.
 07 A. Bear with me a second. 1770.
 08 If you look on page 2 of that,
 09 you'll see that the -- if you look at
 10 vessel class and statutory surveys, about
 11 halfway down the second page, you'll see
 12 that the ISSC.IN and the SMC.IN, which is
 13 the intermediate safety management
 14 certificate audit and the ship's security
 15 intermediate audit are shown as in
 16 progress, which meant that somebody had
 17 created a survey job to do them.
 18 So, yes, that was -- it was
 19 definitely scheduled to be done.
 20 EXAMINATION BY MR. HAYCRAFT:
 21 Q. But not done because of the
 22 tragedy?
 23 A. Right.

Page 178:20 to 179:21

00178:20 The next one is 1785. This is
 21 ISPS Code certification renewal, ship
 22 security verification report. So this is
 23 related to renewal audit for the Deepwater
 24 Horizon, and this was issued offshore,
 25 onboard. The date of the verification
 00179:01 audit was 2007, May 15th and 16th.
 02 EXAMINATION BY MR. HAYCRAFT:
 03 Q. Just on that particular date,
 04 you were onboard, doing both the ISM survey
 05 as well as this ISPS survey; correct?
 06 A. That's correct.
 07 Q. In other words, the 24 or
 08 36 hours onboard included both aspects of
 09 of DNV's survey work for the Deepwater
 10 Horizon at that time?
 11 A. That's correct.
 12 Q. And that date, May 15-16, in
 13 fact, was the last date that you'd been
 14 aboard the Deepwater Horizon?
 15 A. That's correct.
 16 Q. And to your knowledge, that's
 17 the last date any Det Norske Veritas ISM
 18 survey -- surveyor was aboard the Deepwater
 19 Horizon?
 20 A. To the best of my knowledge,
 21 yes, that's true.

Page 181:08 to 181:13

00181:08 Q. Changing gears on you a bit, if

09 you'll turn to Tab 2 in your binder, which
 10 you'll see is the familiar document, the
 11 ISM Code, which has been identified in this
 12 deposition record as Exhibit 938.
 13 A. Yes, sir.

Page 182:13 to 183:21

00182:13 Q. And if we turn to page 10, we
 14 can be more precise as far as how the ISM
 15 Code defines who the party responsible for
 16 ISM Code compliance is.
 17 If you look at the definition of
 18 "company," would you agree with me that the
 19 ISM Code reference to the party responsible
 20 for code compliance is the owner of the
 21 ship, or any other organization or person,
 22 such as the manager or the bareboat
 23 charterer who has assumed the
 24 responsibility for operation of the ship
 25 from the ship owner, and, too, on assuming
 00183:01 such responsibilities, has agreed to take
 02 over all duties and responsibility imposed
 03 by the code.
 04 Does that sum it up properly?
 05 A. Yes. That's what -- that's what
 06 it says in the code.
 07 Q. And that's your understanding of
 08 what the code intends?
 09 A. Yes.
 10 Q. And in the case of the Deepwater
 11 Horizon, while you may not know who the
 12 precise corporate entity is with ownership
 13 or management of the Deepwater Horizon, you
 14 understood that the party you were
 15 interacting with, in terms of ISM Code
 16 compliance, was Transocean; correct?
 17 A. Yes, specifically Transocean
 18 Offshore --
 19 Q. Deepwater Drilling?
 20 A. -- Deepwater Drilling, Inc., as
 21 the Document of Compliance holder.

Page 186:05 to 187:12

00186:05 Q. Tab 1-A and we'll need the
 06 exhibit numbers. But it'll be the
 07 observation about -- about overriding
 08 authority of the master.
 09 A. Okay. I'm looking at the 2009
 10 audit report, and I certainly see such
 11 observation in there. It's Exhibit
 12 No. 1768.
 13 Q. Okay. We're looking at 1768,

14 and -- first of all, that's the report
15 issued by you?
16 A. Yes, sir.
17 Q. So when we see "David McKay" on
18 that particular document along -- typed as
19 well as your signature, this is an
20 observation you, yourself, made in 2009?
21 A. That's correct.
22 Q. Okay. Well, read it for the
23 record.
24 A. All right. It's observation No.
25 8. It says: As previously observed, the
00187:01 statement of master's authority is still
02 not clearly and completely stated within
03 the company's safety management system.
04 Although there are various statements of
05 the master's authority, but there's no
06 clear and absolute indication of the
07 master's overriding authority and
08 responsibility. The company is requested
09 to address this. Reference ISM Code 5.2.
10 Q. And that's the reference that we
11 just looked at in the code itself?
12 A. That's correct.

Page 190:05 to 191:20

00190:05 Q. In looking at -- in thinking
06 back over the 2009 company audit
07 observation regarding 5.2 --
08 A. Yes.
09 Q. -- in the ISM Code, how did --
10 explain to us how that came into being; how
11 you -- how you came up with that
12 observation.
13 A. Okay. I will certainly do my
14 best. As I read to you before, you'll
15 notice that I said "as previously
16 observed." And I think that this was a
17 discussion that had started with -- between
18 one of my colleagues that had previously
19 performed audits, and that was a debate
20 that had gone back and forth between
21 Transocean and DNV for some time about how
22 the master's responsibility was stated
23 within the Transocean safety management
24 system.
25 And I think our general feeling
00191:01 was that, although it was -- it was stated,
02 and you could find the totality of the
03 required statement in the safety management
04 system, it wasn't necessarily clear,
05 because it wasn't all -- the statement
06 wasn't really in one place. It was -- it
07 was in different places.

08 I don't think there was any
 09 doubt about the company's statement of the
 10 master's authority. It certainly was
 11 stated. It wasn't for my purposes, and I
 12 think having discussed this with my
 13 colleague, for his purposes, also, not
 14 clear enough. And that's -- that's why
 15 this observation was made then.
 16 I think we had -- we had
 17 discussed it at length with Transocean over
 18 a number of years about -- about how they
 19 documented the Master's responsibility, and
 20 you can find it in numerous places.

Page 192:06 to 192:12

00192:06 EXAMINATION BY MR. HAYCRAFT:
 07 Q. Well, let me ask this: When a
 08 dynamically-positioned ship, such as the
 09 Deepwater Horizon is on station and the
 10 drilling mode latched on, who was the --
 11 who is the person onboard with overriding
 12 authority?

Page 192:15 to 193:24

00192:15 THE WITNESS:
 16 In my mind?
 17 EXAMINATION BY MR. HAYCRAFT:
 18 Q. Uh-huh (affirmative).
 19 A. It's always the master.
 20 Q. The master is the master of the
 21 the vessel; correct?
 22 A. Yes. The captain, if you like.
 23 Q. He's -- he is the ultimate
 24 authority for the safety of the vessel and
 25 the persons onboard the vessel?
 00193:01 A. He is.
 02 MR. KALLAM:
 03 Objection to form.
 04 EXAMINATION BY MR. HAYCRAFT:
 05 Q. And do you come by that
 06 understanding -- well, let me ask it
 07 directly.
 08 How do you come by that
 09 understanding that the master of the
 10 vessel, as per the ISM Code, should be the
 11 ultimate authority aboard the vessel for
 12 the safety of his vessel and the crew?
 13 A. Well, I think to put it simply,
 14 it's a requirement of the ISM Code. It's
 15 very clearly stated in 5.2 that the master
 16 has the overriding authority and
 17 responsibility for the safety of the vessel

18 and the persons onboard; and that if the
19 company safety management system is ISM
20 compliant, this system must contain a clear
21 statement to that effect. So there's no --
22 there should be no doubt who is in command.
23 Q. At all times?
24 A. At all times.

Page 194:20 to 194:25

00194:20 Q. Well, let's -- I've just
21 mentioned the marine compliance manual.
22 But more in line with your audit
23 responsibilities, let's take a look at Tab
24 2, which is Exhibit 939 -- excuse me, Tab
25 3, which is Exhibit 939.

Page 197:05 to 199:01

00197:05 Well, turn to page 8, and you'll
06 see -- you'll see that the section that I'm
07 looking at here on page 8 has a sort of an
08 overall heading of International Safety
09 Management Code.
10 So it's pretty clear, even if
11 you hadn't read it before, that these are
12 the pages that have to do with ISM Code and
13 Transocean's -- Transocean's efforts to put
14 the ISM Code into practice in a manual.
15 You see that?
16 A. Page 8, yes, I see page 8.
17 Q. Okay. And you see where it says
18 International Safety Management Code ISM
19 across the top?
20 A. Yes, sir.
21 Q. Okay. And look at the -- the
22 page itself, and I'll just read from it.
23 Transocean administration
24 onboard the MODU are as follows: A) The
25 master is the overall responsible person on
00198:01 the MODU when it is underway and/or moving
02 to another location.
03 And then -- and B, it says the
04 offshore installation manager, OIM, is the
05 overall responsible person for the
06 day-to-day operation of the MODU while it
07 is drilling and, therefore, must work with
08 the master in ensuring safety practices and
09 environmental protections -- in ensuring
10 safety practices and environmental
11 protections are followed, since most of the
12 personnel on the MODU work under his
13 charge. He's also charged with ensuring
14 the implementation of safety policy and

15 procedures.
16 And my question is: If -- if
17 you did read this page from the ISM
18 handbook for Transocean, in making an
19 assessment that's found in your observation
20 regarding the overall -- the overriding
21 authority of the master in section or
22 paragraph 5.2 of the ISM Code, would you --
23 would you have any issue with the statement
24 of the master's responsibility as
25 expressed, at least in this particular
00199:01 document?

Page 199:04 to 199:17

00199:04 THE WITNESS:
05 I think -- I suspect that this
06 was possibly one of the documents that led
07 to raising the observation, if I can put it
08 that way.
09 For example, I don't think, in
10 this Section 8, it's clearly defined about
11 the master's overriding authority and
12 responsibility.
13 So it's likely that this was one
14 of the documents produced by Transocean,
15 demonstrating that the master's
16 responsibilities were documented, perhaps
17 not quite clearly enough.

Page 199:23 to 200:18

00199:23 If you happened to go aboard to
24 do your ISM survey on the Deepwater Horizon
25 on April the 20th, 2010, and am I -- is it
00200:01 reasonable for me to assume you would visit
02 with the master of the Deepwater Horizon at
03 that time?
04 A. Absolutely.
05 Q. Okay. And I'll represent to you
06 that the master of the vessel on that date
07 was Captain Kurt Kuchta, K-U-C-H-T-A. And
08 I'm going to ask you to assume that Captain
09 Kuchta would tell you that he was in
10 command of the vessel when it was underway,
11 but while it was latched on and in a
12 drilling mode, the OIM was the person in
13 charge of the vessel.
14 If he told you that -- and,
15 obviously, it's a hypothetical question.
16 But if he told you that, would that raise
17 concerns with paragraph 5.2 -- with
18 reference to paragraph 5.2 of the ISM Code?

Page 200:24 to 201:19

00200:24 MR. HAYCRAFT:
25 You can answer it, though. I
00201:01 gave you plenty of warning.
02 THE WITNESS:
03 I think, hypothetically, if the
04 captain had quoted or showed me this
05 paragraph A, my interpretation of
06 "underway" for a DP vessel is even when
07 it's latched to the well, it's underway.
08 So to me, he's always in
09 command.
10 EXAMINATION BY MR. HAYCRAFT:
11 Q. He should always be in command?
12 A. In my opinion, he should always
13 be in command.
14 Q. Sort of backing -- backing away
15 from that specific type of question, but
16 would that interview -- would your
17 discussion with the master on April the
18 20th be sure that the Deepwater Horizon had
19 a adequate emergency response plan?

Page 201:23 to 202:10

00201:23 I think, as I previously
24 testified, one of the -- one of the
25 elements of ISM Code is related to
00202:01 emergency preparedness, and it talks about
02 having plans for facing emergency
03 situations. And it also talks about having
04 drills or exercises to train for responding
05 to those. So without doubt, on an ISM
06 audit, one of the elements that you would
07 investigate or one would investigate, or
08 even I would investigation -- and I have
09 always done this -- is to look into the
10 emergency response manual, yes.

Page 202:12 to 202:16

00202:12 Q. And the ISM Code puts that
13 emergency response manual and drill and
14 plan responsibility upon the company, as
15 defined in the ISM Code that we went over a
16 few minutes ago?

Page 202:20 to 202:21

00202:20 Let me consult with the ISM
21 Code. Let's see exactly what it says.

Page 202:23 to 203:23

00202:23 Q. Fine.
24 A. Paragraph 8, if I can just read
25 this to you.
00203:01 Q. Sure.
02 A. It'd be the simplest thing to
03 do. Paragraph 8 is related to emergency
04 preparedness, and, as you suggest, it
05 clearly says in 8.1, the company should
06 establish procedures to identify, describe,
07 and respond to potential emergency
08 shipboard situations.
09 And paragraph 8.2, the company
10 should establish programs for drills and
11 exercises to prepare for emergency action.
12 So, yes. The answer to your
13 question is yes. It's the company's
14 responsibility.
15 Q. Your audits in 2005 and 2007
16 involved -- each involved 24 to 36 hours
17 aboard the vessel?
18 A. Yes.
19 Q. And it was -- it was just you?
20 You didn't have team members with you; did
21 you?
22 A. According to the -- according to
23 the reports, I was -- I was by myself.

Page 204:09 to 205:11

00204:09 Q. Is it -- do I understand that
10 DNV is a classification society?
11 A. DNV is a classification society.
12 Q. And as such, it's one of the
13 classification societies that are termed,
14 in the International Maritime Organization,
15 recognized organizations for carrying out
16 the shipboard inspection responsibilities
17 of a flag state?
18 A. That's correct.
19 Q. And when you are -- when you
20 were aboard the Deepwater Horizon in 2007,
21 you were, in effect, the flag state, the
22 the Republic of the Marshall Islands --
23 conducting a compliance audit on behalf of
24 the flag state, the Republic of the
25 Marshall Islands; correct?
00205:01 A. That's correct.
02 Q. And the DNV is paid by -- the
03 fees for the survey, for your time, for
04 travel, and the professional fee is paid --
05 was paid in 2007 by Transocean; correct?
06 A. Correct.

07 Q. However, you were conducting the
08 activity on behalf of the Republic -- the
09 Maritime Administration of the Republic of
10 the Marshall Islands; correct?
11 A. Correct.

Page 207:10 to 207:21

00207:10 Q. The -- the DNV classification
11 society, slash, recognized organization
12 under the IMO, that -- your organization
13 conducts audits measuring a vessel or a
14 safety management system aboard a vessel
15 against an international standard; correct?
16 A. Correct.
17 Q. And in your case, the ISM Code?
18 A. And ISPS.
19 Q. And the ISPS as well as the ISM
20 Code?
21 A. Yes.

Page 214:08 to 214:15

00214:08 Q. Was there discussion -- and by
09 "discussion," I mean at any time, not at
10 the moment, that the word observe -- that
11 it went under the term observation in the
12 survey report.
13 But was there any discussion
14 about what category that statement belonged
15 in?

Page 214:18 to 214:20

00214:18 THE WITNESS:
19 I'm just recalling. I don't
20 remember.

Page 217:25 to 218:08

00217:25 Q. Is it -- was it part of your
00218:01 auditing job for the ISM survey to check
02 the validity of the safe-manning -- the
03 minimum safe-manning certificate or simply
04 to see that one existed?
05 A. I think my typical practice on
06 ISM audits is to verify that a safe-manning
07 certificate is just onboard and to take it
08 as being correct.

Page 236:14 to 238:02

00236:14 Q. And I think you mentioned that
 15 when you do your audits, you're not looking
 16 at the condition of hardware; you're
 17 looking at the management system.
 18 Does that sound familiar?
 19 A. I -- yeah. I said something
 20 along those lines, but let me qualify that
 21 a little bit just so we're absolutely
 22 clear.
 23 When -- as part of an ISM audit,
 24 I find that it's well worthwhile to have a
 25 general look at the condition of the
 00237:01 vessel, because from -- from a surveyor's
 02 standpoint, having done many class surveys
 03 and also being an ISM auditor, you can --
 04 you can gauge, I think, the condition of
 05 the vessel by just a general visual survey
 06 walk around, if you like.
 07 And I think the condition of the
 08 vessel tells you something about the
 09 standard of maintenance, and the standard
 10 of maintenance then tells you about how
 11 committed the company is to following the
 12 safety management system.
 13 So the things are all related
 14 and I -- my normal practice, when I do an
 15 ISM audit, is to do a physical inspection
 16 of the vessel. And as I mentioned earlier
 17 on, often ISM audits are done in
 18 conjunction with ISPS audits, and typically
 19 an ISPS audit involves a tour of the
 20 security arrangements that they have
 21 onboard, padlocks on doors, and such thing.
 22 So it's easy to combine the two.
 23 Q. Okay. I think we established
 24 that you don't inspect the BOPs?
 25 A. If they're not -- if they're not
 00238:01 physically present onboard the vessel, it's
 02 difficult to do so.

Page 238:16 to 240:03

00238:16 Q. Would you call it a
 17 representative sample or a random
 18 walk-through the way you go about doing
 19 your inspection?
 20 A. Yeah. I mean, I don't -- I
 21 wouldn't visit every compartment onboard.
 22 I don't know how familiar you are with
 23 rigs, but, you know, the more modern
 24 semi-submersible rigs have got elevators
 25 going down to the pump room. So it's
 00239:01 relatively easy to go down there and have a
 02 look around in the pump rooms; whereas, the
 03 older ones you're talking about vertical

04 ladders. So that's more of a challenge to
05 get all the way down there and all the way
06 back up.
07 So depending on -- depending on
08 numerous -- numerous things. Where
09 operations are going on at the time, how
10 busy the crew are, and whether they could
11 have someone available to walk with me,
12 and, typically, I find that they don't
13 necessarily like having a third-party
14 auditor and inspector wandering by himself.
15 Then -- but that depends. And
16 also the timing, you know. If it's -- if's
17 there's plenty of time, then the more
18 chance you get to look around.
19 So -- but, yeah. I mean,
20 it's -- in answer to your question, it's
21 not an exhaustive survey of every single
22 compartment onboard. It's a representative
23 look around.
24 And I think having some
25 experience of doing class surveys on MODUs,
00240:01 and you get a pretty good idea. I think,
02 even before you get off the helicopter,
03 honestly, you can tell.

Page 240:06 to 240:22

00240:06 Q. Now, do you inspect the fire and
07 gas detecting systems or check them out?
08 A. No.
09 Q. Okay. What about alarm systems?
10 A. Maybe to the point where when
11 you walk through the control room -- the
12 engine control room or the drilling control
13 room or the bridge, if you see multiple
14 alarms flashing, that may lead you to ask a
15 question. Why are all these alarms
16 flashing?
17 Q. Okay. But you wouldn't go
18 inspect the control panel, otherwise?
19 A. Not specifically. The chances
20 are you would walk through the driller's
21 shack when you went up to the drill floor
22 just have look around there.

Page 241:19 to 242:07

00241:19 Q. So part of the purpose of the
20 audit is to make sure that they have safety
21 management systems in place and that the
22 systems are running properly; is that
23 right?
24 A. The main purpose of the audit,

25 as I testified previously, is to verify
00242:01 that the safety management system is
02 operational and compliant with the ISM
03 Code. The safety management system could
04 cover more than just that required by the
05 ISM Code. But as an ISM auditor, I'm
06 constrained to the elements of the ISM
07 Code.

Page 246:18 to 247:01

00246:18 Q. And would you say that -- that
19 the Transocean rigs tend to have overdue
20 maintenance?
21 A. Yeah. As a subset of the all,
22 and then by definition the Transocean ones,
23 when you go onboard at any one time, you
24 could look in upon the maintenance system
25 and you might find a few items that were
00247:01 past their due date. So, yes.

Page 247:09 to 248:03

00247:09 Q. Transocean.
10 A. Typically -- typically, my
11 experience with working with Transocean is
12 that they're -- they're very dedicated to
13 making sure that the crew has taken the --
14 the company-specified mandatory training.
15 And speaking on -- to the RSTC, which is
16 the rig safety training coordinator,
17 onboard, each rig has a person whose sole
18 responsibility is to follow up with safety
19 training, and they call them their RSTC.
20 So that's a commitment in itself to safety
21 training.
22 And, normally, I would speak
23 with that person at each -- each visit
24 onboard a rig. I think Transocean as a
25 company is pretty committed to safety
00248:01 training, and they put a lot of time,
02 effort, and money into it. So they don't
03 like to fall behind. A company -- yep.

Page 249:01 to 249:21

00249:01 Q. Okay. Could you open the white
02 book in front of you to Tab No. 5, and Tab
03 No. 5 is an exhibit, titled, "DNV Safety
04 Management Certificate" with the Bates
05 labeled TRN-MDL-00302127, through 02132.
06 Do you recognize this?
07 A. 127, 128, 129, 130, 131, 132.

08 I recognize what they are. I
09 don't necessarily recognize every single
10 page here.
11 Q. The third page in.
12 A. The third page in.
13 Q. ISM and ISP audits.
14 A. Yes, I do recognize that.
15 Q. That's you on the bottom?
16 A. This is my signature on the
17 bottom, yeah.
18 Q. This just means you conducted an
19 audit of the Transocean vessel entitled the
20 GSF Development Driller?
21 A. Development Driller 1.

Page 251:05 to 251:08

00251:05 Q. Okay. Thanks. Observation No.
06 3, small number of overdue planned
07 maintenance tests were noted. Do you know
08 what you mean by "small number"?

Page 251:12 to 251:16

00251:12 Probably -- probably less than
13 ten.
14 MR. O'ROURKE:
15 Sir, I'd like to make this an
16 exhibit. Do you mind if I ask you to mark

Page 252:11 to 252:16

00252:11 And so what exhibit number did
12 you assign to that?
13 MR. COHEN:
14 1790.
15 MR. O'ROURKE:
16 1790. Thank you.

Page 252:21 to 253:08

00252:21 Q. And would you now, please,
22 switch over to Tab 7 in the white book that
23 you're touching. Tab 7 is DNV Safety
24 Management Certificate and associated
25 documents, TRN-MDL-00302146 through 155.
00253:01 A. Okay.
02 Q. Do you recognize that?
03 A. General, yes.
04 Q. And turning four pages into that
05 TRN-MDL, 2149, does this appear to be your
06 initial ISM audit for the GSF C.R. --
07 A. Luigs.

08 Q. Luigs, thank you.

Page 254:20 to 255:05

00254:20 Q. So, I guess on the second page
21 of your audit report, the survey
22 observation and finding observation No. 2
23 is --
24 A. Yes.
25 Q. -- again, a small number of
00255:01 overdue planned maintenance tasks?
02 A. Yes.
03 Q. Would you say small is probably
04 defined the same?
05 A. Yes.

Page 256:22 to 257:03

00256:22 Q. Okay. And if I could ask you to
23 put an exhibit sticker on it with the next
24 number.
25 MR. COHEN:
00257:01 1791.
02 MR. O'ROURKE:
03 Thank you.

Page 257:10 to 257:14

00257:10 Q. Tab 8 is DNV safety management
11 certificate and associated documents,
12 TRN-MDL-00302156 through 02160.
13 Do you recognize this set of
14 documents, sir?

Page 257:17 to 257:25

00257:17 THE WITNESS:
18 Yes, sir.
19 EXAMINATION BY MR. O'ROURKE:
20 Q. And what do these appear to be?
21 A. This is a safety management
22 certificate for vessel Discoverer Clear
23 Leader, full term, and this is an initial
24 ISM, ISPS audit for -- it was also the
25 Discoverer Clear Leader conducted in 2009.

Page 258:07 to 258:13

00258:07 Q. And observation No. 2 refers to
08 a large number of overdue planned
09 maintenance tasks?
10 A. Yes.

11 Q. Approximately 650, did I red
12 that correctly?
13 A. Yes.

Page 262:14 to 262:16

00262:14 MR. O'ROURKE:
15 Thank you. Behind Tab 8. So if
16 we can now mark that set with a number.

Page 262:20 to 262:23

00262:20 MR. COHEN:
21 Okay. 1792.
22 MR. O'ROURKE:
23 Thank you.

Page 263:06 to 263:10

00263:06 Q. Tab 9, DNV safety management
07 certificate for the Transocean Marianas,
08 DRN-MDL-00302182 through 192.
09 Do you recognize these
10 documents, sir?

Page 263:13 to 263:14

00263:13 THE WITNESS:
14 Yes.

Page 264:04 to 264:15

00264:04 Q. -- the Observation No. 1, refers
05 to a number of overdue maintenance tasks,
06 including equipment deemed safety critical.
07 Does it make a difference
08 whether it's safety critical or not for
09 whether it's an observation versus a
10 nonconformity?
11 A. It could. But in this case,
12 obviously, I didn't consider it serious
13 enough to make this a nonconformity. And I
14 think, again, it was because they had an
15 explanation.

Page 266:01 to 266:05

00266:01 MR. O'ROURKE:
02 And may we put an exhibit
03 sticker on it?
04 MR. COHEN:
05 1793.

Page 271:19 to 272:17

00271:19 You're a naval architect by
 20 education; is that correct?
 21 A. That's correct.
 22 Q. And a marine surveyor by trade?
 23 A. Yes.
 24 Q. Do you have any formal
 25 certificates or any licenses to speak of?
 00272:01 A. As in subsea going type, no.
 02 Q. So you don't have a Coast Guard
 03 license or any licenses from Scotland or
 04 anything like that?
 05 A. No.
 06 Q. You have no formal training in
 07 drilling oil wells; is that correct?
 08 A. That's correct.
 09 Q. Or well control or anything of
 10 that nature?
 11 A. That's correct.
 12 Q. Okay. You're here today,
 13 because you performed a couple of audits on
 14 the Deepwater Horizon; an ISM audit in July
 15 of 2005, an ISM-ISPS audit in May of 2007;
 16 that's correct?
 17 A. That's correct.

Page 275:23 to 276:09

00275:23 Q. You haven't formed any opinions
 24 one way or another in reference to any of
 25 its possible causes of the casualty; have
 00276:01 you?
 02 A. No. I'm no -- I'm no expert in
 03 forensic examination or failure
 04 investigations. So, no.
 05 Q. And after today, you don't have
 06 any intention of going and studying up and
 07 coming to a conclusion; is that right?
 08 A. I have no -- no intention
 09 whatsoever.

Page 292:01 to 292:11

00292:01 Q. As I understand it, you either
 02 performed or were part of a team that
 03 would've conducted the audits associated
 04 with the Document of Compliance for
 05 Transocean from 2005 up until 2009; is that
 06 correct?
 07 A. That is correct.
 08 Q. Okay. So that would've been

09 five different audits of the corporate
10 headquarters of Transocean; is that right?
11 A. That's correct.

Page 293:10 to 293:14

00293:10 their HSMS, 5 years long. But the audit
11 regime is such that you have annual audits
12 of the -- of the corporate office or
13 DOCholder's office every year, with the
14 renewal being every fifth year.

Page 297:21 to 298:23

00297:21 Q. Okay. So as part of the
22 interview process, are you also reviewing
23 the documents within the Transocean safety
24 management system to ensure that they're in
25 compliance with the code?

00298:01 A. Yeah. To some extent. I
02 think -- going back to 2002 -- 2001-2002,
03 when the ISM Code was starting to be
04 implemented --

05 Q. Right.

06 A. -- the majority of the review of
07 the totality of the safety management
08 system was done by one of my colleagues,
09 David Lorimar, who was the first auditor
10 who was involved with Transocean. And
11 he -- he reviewed the entire safety
12 management system and verified that we had
13 covered all the elements required by the
14 ISM Code.

15 Subsequent to that, company
16 audits, it's not normal to review the
17 totality of the safety management system.
18 Transocean's safety management system, as I
19 testified before, is consistent with
20 numerous manuals. To sit down and review
21 all those manuals once a year would take a
22 week. The audit typically takes two or
23 three days.

Page 300:19 to 301:05

00300:19 Q. Now, as part of each annual
20 survey, your ultimate goal is to either
21 certify the safety management system as
22 being in compliance with the ISM Code or
23 not; is that correct?

24 A. That's fair to say.

25 Q. All right. Is it fair to say
00301:01 that from your direct involvement in April

02 of 2005 until April of 2009, the Transocean
03 corporate safety management system has
04 always been in compliance with the ISM
05 Code?

Page 301:10 to 301:21

00301:10 THE WITNESS:

11 In my opinion, it has. I've
12 endorsed the Document of Compliance each
13 year for satisfactory completion of the
14 audit, and the Document of Compliance does,
15 in fact, state that -- it's a certificate
16 to state that the system has been found in
17 compliance with the requirements of the ISM
18 Code. So by endorsing it each year, it's a
19 renewed statement, if you like, from me, as
20 the auditor, saying, I think that you
21 continue to comply.

Page 302:20 to 303:11

00302:20 Q. I heard you testify earlier, and
21 I want to confirm this. But from 2005
22 until -- April of 2005 until April of 2009,
23 in fact, during each of those annual
24 inspections, you never determined any
25 nonconformity within the ISM Code; isn't

00303:01 that correct?

02 A. That's not correct.

03 Q. All right. What year or what
04 nonconformity did you ever determine that
05 Transocean had not been in compliance with
06 the ISM Code?

07 A. Well, there was a number of
08 observations, as you know, where there was
09 opportunities for improvement. But I
10 believe there was a nonconformity issued by
11 me in 2009.

Page 307:02 to 307:13

00307:02 Q. All right. Now, we've attached
03 a number of documents that show the safety
04 management certificate for the Horizon,
05 starting with Exhibit 1771 through 1776,
06 and you can feel free to look at those if
07 you'd like.

08 But from your involvement from
09 April of 2005 until the present, can you
10 testify that there was always a valid
11 safety management certificate in effect for
12 the Deepwater Horizon during that period of

13 time?

Page 307:17 to 307:23

00307:17 I think if you -- if you go
18 through the dates, you can see that there
19 was a safety management certificate valid
20 at any time from 2002 all the way
21 through -- there's still -- the last
22 certificate would have been still valid
23 today.

Page 310:01 to 312:12

00310:01 Q. We've talked about your
02 procedures of what was done, and I think we
03 all have a good understanding of that.
04 On -- in connection with the 2005 survey,
05 isn't it correct that there were no
06 non-conformities or major non-conformities
07 found aboard the Deepwater Horizon?

08 A. That's correct.

09 Q. What about for the May of 2007
10 survey, which was marked as Exhibit 1778,
11 is it also true that there were no
12 non-conformities or major non-conformities
13 found during that survey period as well?

14 A. That is correct.

15 Q. All right. Now, based on your
16 five years of experience performing
17 corporate audits of Transocean, as well as
18 the audits that you performed onboard the
19 Deepwater Horizon, did you form opinions
20 insofar as the safety culture of Transocean
21 was concerned?

22 In connection -- in particular
23 with the safety management system, let's
24 start with that.

25 A. Okay. Please repeat your
00311:01 question. I'm sorry.

02 Q. Well, you've had over five years
03 of experience auditing the safety
04 management system of Transocean corporate
05 office, from April of '05 to April of '09;
06 correct?

07 A. That's correct.

08 Q. And you also had the opportunity
09 in 2005 and 2007 to audit the Deepwater
10 Horizon; is that correct?

11 A. That's correct.

12 Q. During those periods of the
13 audit process, you interviewed numerous
14 individuals who worked in the corporate
15 office; correct?

16 A. Correct.
 17 Q. You interviewed numerous crew
 18 members out onboard the Deepwater Horizon;
 19 is that correct?
 20 A. That is correct.
 21 Q. In fact, these surveys that we
 22 mentioned to you -- I mentioned to you
 23 earlier, on the Deepwater Horizon itemized
 24 specifically what supervisors you met with
 25 and for how long; correct?
 00312:01 A. That's true.
 02 Q. Now, in addition to that, you
 03 would've had interaction with other crew
 04 members aboard the rig; correct?
 05 A. Yes.
 06 Q. What I'm asking you is, based on
 07 that interaction and those interviews and
 08 walking the decks of the rig, the Deepwater
 09 Horizon, and walking the halls of
 10 Transocean's corporate offices, did you
 11 form an opinion as to the quality of their
 12 safety management system?

Page 312:17 to 313:18

00312:17 THE WITNESS:
 18 With regard to the -- the safety
 19 culture onboard or in the office or --
 20 EXAMINATION BY MR. KALLAM:
 21 Q. Let's separate them.
 22 A. Okay.
 23 Q. Let's first talk about in the
 24 office.
 25 A. Okay. I think my impression of
 00313:01 the people that you have in your corporate
 02 office or Transocean has in their corporate
 03 office, I beg your pardon, is that they're
 04 professional, they're dedicated to their
 05 jobs, and they're -- they're pretty
 06 focussed on safety management. I think
 07 they -- they see how they can make a
 08 difference with their particular job
 09 functions, even though it's not onboard.
 10 Even though it's in the office, but it
 11 affects -- it affects safety and pollution
 12 prevention.
 13 So I think the safety culture in
 14 the Transocean office is good.
 15 Q. Would you agree that
 16 Transocean's safety management system was
 17 a -- was a well-prepared, robust, and
 18 well-implemented system?

Page 313:23 to 314:08

00313:23 THE WITNESS:
24 I would agree with you there.
25 EXAMINATION BY MR. KALLAM:
00314:01 Q. All right. Now, let's talk
02 about the safety management system
03 observations that you've experienced while
04 aboard the Deepwater Horizon and
05 interacting with her crew in 2005 and 2007.
06 Would you, likewise, agree with
07 me that that crew exhibited a serious and
08 dedicated effort toward safety?

Page 314:13 to 316:22

00314:13 THE WITNESS:
14 Yeah, I think in answering that
15 question, I'd -- I'd like to refer you back
16 to the testimony I gave to the JIT.
17 EXAMINATION BY MR. KALLAM:
18 Q. Right.
19 A. And I think I specifically said
20 something along the lines that the -- in
21 fact, let me find exactly what I said,
22 because I have the transcript here, rather
23 than guessing at it.
24 Can I quote from this to you?
25 Q. Absolutely.
00315:01 A. Okay. The question I was asked
02 was very similar to what you asked, I mean,
03 just now, regarding the Deepwater Horizon.
04 And I said: I think it's fair
05 to say, although I have to say that I don't
06 recall in any detail this specific audit.
07 But I think it's fair to say from my
08 general experience of auditing vessels
09 owned by this company that the crew are
10 enthusiastic about safety management and
11 pollution prevention, and they take the
12 duties required by the ISM Code very
13 seriously, and they're very proud of their
14 activities.
15 Q. All right. And you also
16 testified earlier that the crew onboard the
17 the Deepwater Horizon was serious about
18 safety management. Is that a fair
19 statement?
20 A. That's a fair statement.
21 Q. Now, you were asked some
22 questions earlier about maintenance and
23 overdue maintenance and routine
24 maintenance, observations that you may have
25 made at different points in time. And I
00316:01 think you testified that the condition of a
02 rig tells you a lot about the maintenance

03 program of a company or a crew onboard a
 04 rig.
 05 Is that a fair characterization
 06 of what you were alluding to?
 07 A. Yeah. I think what I said, was
 08 that the condition of the rig tells you a
 09 lot about the standards of maintenance and
 10 the safety management systems on how
 11 closely the crew were following up that
 12 safety management system.
 13 Q. All right. Now, based upon your
 14 observations as both a naval architect and
 15 a marine surveyor and your interviews of
 16 the crew, and you've looked at the rig --
 17 all right. Based upon that, as well as
 18 your review of the rig maintenance system,
 19 the RMS system concerning maintenance, did
 20 you reach conclusion -- a conclusion about
 21 the quality of Transocean's maintenance
 22 program aboard the Deepwater Horizon?

Page 316:25 to 317:13

00316:25 THE WITNESS:
 00317:01 The -- the vessel appeared to be
 02 well maintained to me on both visits, as
 03 far as I can remember. It was clean, tidy.
 04 There wasn't apparent safety hazards. The
 05 maintenance system was by and large up to
 06 date. There was some minor problems, which
 07 I think I reported in 2007.
 08 The crew were very professional
 09 about how they -- they regarded making sure
 10 that they did what they were supposed to do
 11 with regard to their duties. So it seemed
 12 to be a well-run operation from my
 13 perspective.

Page 317:21 to 318:04

00317:21 Isn't it true, Mr. McKay, that
 22 had you observed the condition associated
 23 with the maintenance schedule or the
 24 maintenance that was being performed aboard
 25 the Horizon, you would've certainly noted
 00318:01 that in your report if it -- if it dealt
 02 with a critical safety issue that dealt
 03 with the safety of the rig or the hazard to
 04 the environment; would you not?

Page 318:07 to 318:13

00318:07 THE WITNESS:

08 I think I did.
09 EXAMINATION BY MR. KALLAM:
10 Q. Okay.
11 A. I think I did, in fact, make a
12 comment about some maintenance that was not
13 up to -- to when it should be.

Page 320:10 to 320:16

00320:10 Q. And that was part of your
11 assigned task, though, was to -- was to
12 analyze the training of those aboard the
13 rig, the training system within Transocean,
14 and ensure that that training program, as
15 within the SMS system, was compliant with
16 the ISM Code; is that right?

Page 320:19 to 321:19

00320:19 THE WITNESS:
20 I think that may be overstating
21 it a little bit. I think Transocean has --
22 Transocean has identified training which
23 has developed into a matrix, which it
24 considers mandatory, depending on what
25 position an individual holds within the
00321:01 onshore or offshore structure.
02 If you hold that position in the
03 elements of training identified for that
04 position which you hold are considered to
05 be mandatory by the company. So,
06 therefore, you should have them all. It's
07 not my job to assess that training for
08 suitability.
09 Q. Okay.
10 A. It's my job as the auditor to
11 make sure that Transocean, as part of their
12 safety management system, is ensuring that
13 the personnel are performing the training,
14 whether it's on-the-job training or
15 classroom training, similar to what DNV has
16 for surveyors.
17 In terms of looking at the
18 actual content of the training, that's
19 not -- not my agreement as I see it.

Page 322:01 to 322:13

00322:01 A. From the perspective, again,
02 of -- from the perspective of the ISM Code,
03 as from the purview of looking at it from a
04 safety management perspective, the crew
05 were well trained in knowing --

06 understanding their duties with regard to
07 safety management.
08 So -- so I can't sit here and
09 say that I feel like they were well trained
10 to do every function that they were trained
11 or required to do, because that -- I
12 don't -- I didn't spend long enough onboard
13 to observe that.

Page 331:08 to 331:21

00331:08 Q. Did you also remember a
09 Mr. Jerry Canducci as the ISM designated
10 person over the NAM division? Had you
11 dealt with him?
12 A. Well, I thought that that
13 position was held by Mark O'Toole.
14 Q. As a predecessor to --
15 A. Oh, he was there before?
16 Q. Yes.
17 A. Yes, okay. I've heard -- I've
18 heard Jerry Canducci's name. I don't
19 recall whether -- I'm sure, we've probably
20 talked at one time or another. I don't
21 recall specifics.

Page 336:18 to 336:24

00336:18 Q. Did you ever communicate with
19 anyone at MOEX Offshore 2007, LLC, or any
20 company which you knew to be affiliated
21 with MOEX, regarding any audit you or DNV
22 performed to evaluate or certify the
23 condition of the Deepwater Horizon?
24 A. Again, not to my knowledge.

Page 337:05 to 337:08

00337:05 Q. During the Deepwater Horizon rig
06 audits you performed, are you aware of
07 anyone from MOEX visiting the rig?
08 A. Not -- not to my recollection.

Page 339:14 to 339:21

00339:14 Q. During your 2005 audit
15 inspection, did you inspect the condition
16 of any equipment aboard the Deepwater
17 Horizon?
18 A. Yes.
19 Q. And did you verify that any of
20 that equipment was functioning properly?
21 A. No.

Page 341:05 to 341:18

00341:05 Q. Sure. At the closing meeting on
06 the Deepwater Horizon, did you discuss
07 proposed corrective actions with the
08 attendees at the meeting?
09 A. Okay. Now, I don't understand
10 your question.
11 Q. Okay. You --
12 A. You said discuss proposed
13 corrective actions?
14 Q. Yes.
15 A. Discuss, yes. Proposed, no.
16 Q. Okay. Did you suggest any
17 corrective actions --
18 A. No.

Page 342:09 to 342:13

00342:09 Q. Did DNV conduct a follow-up
10 audit to confirm TO's compliance with your
11 recommendations and observations in the
12 2005 audit?
13 A. No.

Page 361:02 to 361:15

00361:02 So the ISM Code's requirement
03 there, as I interpret that, is that as long
04 as they have the requisite certificate,
05 that they would hold the position that is
06 required to be certificated according to
07 the safe-manning certificate, that is
08 sufficient.
09 As far as competency, for my
10 purposes, having received the license, they
11 have demonstrated the competency to have
12 that license. What sets behind the license
13 in terms of assessing the competency is not
14 something that I look into. The license is
15 sufficient.

Page 363:18 to 364:02

00363:18 Q. Turn to page 36, Section 11.4.
19 It says: Are fixed fire and gas detection
20 systems fully operational and tested
21 regularly? It says no.
22 Is that something that would
23 cause you concern for your IM -- ISM audit
24 report?
25 A. All I can tell you is possibly.

00364:01 Again, you know, the same comments apply.
02 It depends on the circumstances.

Page 364:10 to 364:22

00364:10 Q. I'll show you another document,
11 which we'll mark as Exhibit 1795, and it's
12 Bates stamped TRN-MDL-0040038 through 096,
13 and it entitled "CMID Annex (BP
14 Requirements for MODUs) With Guidance
15 Notes."
16 It has an inspection date of
17 November 13 through 17, 2009 for the
18 Deepwater Horizon.
19 A. So this is an annex to this
20 report, then, I guess.
21 Q. I believe so.
22 A. Okay.

Page 366:12 to 368:19

00366:12 Q. Paragraph 3 says this document
13 was developed by amending a publication
14 issued by the Internal Marine Contractors
15 Association, INCA, Common Marine Inspection
16 Document, CMID-INCA M 149, issued 7 March
17 2009.
18 Does that description comport
19 with the document it's referencing, which
20 is the prior document I gave you?
21 A. Yeah, I think -- from what I
22 understand from what you just described and
23 what is written here, this is a customized
24 version of this, specifically addressing
25 the needs of BP.
00367:01 Q. And if you look at the last
02 section on the page, the Audit Process:
03 The audit is to ensure that the marine
04 related operations are being conducted in
05 accordance with national and international
06 regulations and established industry
07 guidelines. In addition, the audit will
08 review the emergency response and pollution
09 prevention arrangement. The key elements
10 in the rig auto process are competency of
11 the personnel, management, processes and
12 their implementation, integrity and
13 operability of equipment.
14 Those key elements, are they
15 involved in your ISM audit reporting?
16 A. I would say, yes.
17 Q. If you turn to page 22, section
18 10.11, it says: Are emergency drills held
19 in accordance with SOLAS requirements? It

20 says no.
 21 Would that cause you concern for
 22 purposes of your ISM audit reporting?
 23 A. Perhaps. Let me read what it
 24 says, though.
 25 Emergency drills are held --
 00368:01 when it says "no" to this requirement,
 02 meeting SOLAS, they haven't -- apparently
 03 they haven conducted all the drills that
 04 they were supposed to conduct, except
 05 launching the man overboard boat. I guess
 06 that's apparently what it says.
 07 So, yes, I would -- if I had
 08 discovered that, I would certainly ask some
 09 questions as to why that had not happened.
 10 Q. If you turn the page to page 23.
 11 We're almost done.
 12 Section 11.6: Are measures in
 13 place to effectively isolate ventilation to
 14 enclosed spaces, i.e. machinery spaces,
 15 accommodations/quarters, galleys,
 16 storerooms, et cetera. The answer's no.
 17 Would this cause you concern
 18 with regard to your ISM audit report?
 19 A. Yes, I would think so.

Page 368:24 to 369:05

00368:24 Q. Generally speaking, if measures
 25 aren't in place to effectively isolate the
 00369:01 ventilation of enclosed spaces, that would
 02 be problematic; correct?
 03 A. Yes.
 04 Q. From a safety standpoint?
 05 A. Yes.

Page 369:09 to 369:13

00369:09 Q. Let's look at Section 11.8: Is
 10 fire integrity of bulkheads and decks
 11 satisfactory? Answer's no.
 12 Does that cause you concern for
 13 purposes of your ISM audit reporting?

Page 369:17 to 370:06

00369:17 Q. The fact the answer's no?
 18 A. On the face of it, perhaps. But
 19 I'd have to read the details why the
 20 answer's no, and what it actually says is
 21 that they are -- keeping the fire doors
 22 tied open between the engine rooms, and
 23 that's very common to find that.

24 And it's a safety management
25 issue for sure. It shows that the crew
00370:01 don't understand the importance of
02 maintaining the fire boundaries, which
03 means that their safety training is perhaps
04 deficient.
05 So, yeah, that -- that would be
06 a concern with regard to safety management.