

1 FUSCG/BOEM MARINE BOARD OF INVESTIGATION
2 INTO THE MARINE CASUALTY, EXPLOSION, FIRE,
3 POLLUTION, AND SINKING
4 OF MOBILE OFFSHORE DRILLING UNIT
5 DEEPWATER HORIZON, WITH LOSS OF LIFE
6 IN THE GULF OF MEXICO 21-22 APRIL 2010
7 FRIDAY, JULY 23, 2010

8 * * * * *

9 The transcript of The Joint United
10 States Coast Guard/The Bureau of Ocean Energy
11 Management, Regulation and Enforcement
12 Investigation of the above-entitled cause,
13 before Cindy K. Tregre, a Certified Court
14 reporter, authorized to administer oaths of
15 witnesses pursuant to Section 961.1 of Title
16 13 of the Louisiana Revised Statutes of 1950,
17 as amended, reported at the Radisson Hotel,
18 2150 Veterans Memorial Boulevard, Kenner,
Louisiana 70062, on Friday, July 23, 2010,
beginning at 8:00 a.m.

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1 APPEARANCES:

2 MEMBERS OF THE BOARD:

3 CAPT HUNG M. NGUYEN, CO-CHAIR
4 UNITED STATES COAST GUARD

5 DAVID DYKES, CO-CHAIR
6 THE BUREAU OF OCEAN ENERGY MANAGEMENT,
7 REGULATION AND ENFORCEMENT

8 JASON MATHEWS
9 THE BUREAU OF OCEAN ENERGY MANAGEMENT,
10 REGULATION AND ENFORCEMENT

11 JOHN McCARROLL
12 THE BUREAU OF OCEAN ENERGY MANAGEMENT
13 REGULATION AND ENFORCEMENT

14 ROSS WHEATLEY
15 UNITED STATES COAST GUARD

16 LTR ROBERT BUTTS, COURT RECORDER
17 UNITED STATES COAST GUARD

18 REPORTED BY: CINDY K. TREGRE
CERTIFIED COURT REPORTER

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2

PROCEEDINGS

3

CAPT NGUYEN:

4

Good morning. Please be seated so

5

we can get started. Thank you. The

6

Board will now call Mike Williams.

7

Mr. Williams, please rise.

8

(Witness Complies)

9

* * * * *

10

MICHAEL KEITH WILLIAMS,

11

after having been first duly sworn in the cause,

12

testified as follows:

13

MR. BICKFORD:

14

Captain, I'm Scott Bickford. I'm

15

representing Mr. Williams here today.

16

CAPT NGUYEN:

17

Would you spell your name for the

18

court reporter.

19 MR. BICKFORD:

20 B, as in boy, I-C-K-F-O-R-D. First

21 name Scott.

22 CAPT NGUYEN:

23 Thank you sir.

24 E X A M I N A T I O N

25 BY MR. MATHEWS:

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1 Q. Mr. Williams, for the record, could you
2 please state your full name, and spell your
3 last, sir.

4 A. Michael Keith Williams, W-I-L-L-I-A-M-S.

5 Q. Thank you, sir. By whom are you -- By
6 whom are you employed?

7 A. Transocean.

8 Q. And what position do you hold with
9 Transocean, sir?

10 A. Chief electronics technician.

11 Q. And how long have you been the chief
12 electronics technician?

13 A. Approximately six months.

14 Q. Prior to becoming the chief electronics
15 technician, what was your other positions within
16 Transocean?

17 A. Electronics technician prior to that for
18 a period of one year, and prior to that I was a

19 roustabout.

20 Q. And how long were you a roustabout, sir?

21 A. With Transocean, two years.

22 Q. Were you a roustabout with another

23 company as well, sir?

24 A. No, sir.

25 Q. Did you have any other oil and gas

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1 experience outside of Transocean?

2 A. None.

3 Q. Okay. As chief electronics tech, can

4 you please briefly describe your job

5 responsibilities on board the DEEPWATER HORIZON?

6 A. First and foremost job responsibilities

7 included maintaining the fire and gas systems

8 and any and all electronic signaling devices

9 throughout the rig.

10 Q. All right. Can you please just give me

11 a background of your education, if you had any

12 other jobs that might be involved with

13 electronic technician.

14 A. I was in the United States Marine Corps,

15 and I was a certified avionics technician on

16 ABAB carriers, and that was the educational

17 level that I used to achieve this job.

18 Q. Thank you. Can you please indicate

19 where you were located at the time of the
20 incident on board the DEEPWATER HORIZON, sir?

21 A. I was in the ET shop.

22 Q. Okay. Can you please give us your best
23 recollection of that day up to the event, from
24 the morning of April 20th up until the event,
25 sir.

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1 A. Starting at the time I woke up or --

2 Q. Yes, sir, please.

3 A. Monday was a short change day for me,

4 which would have been the 18th -- no, the 19th.

5 It was a short change -- I had gotten about five

6 hours of sleep the night before -- where we

7 rotate from days to nights, or actually from

8 nights to days. It was reversed. Nothing real

9 unusual that day occurred maintenance wise. We

10 were kind of in a holding pattern waiting for

11 rig floor operations. They had finished the

12 cement job as far as we knew and we were running

13 tests, which normally means a lower maintenance

14 day for us. During testing normally there's no

15 rig floor maintenance that's going to be

16 conducted because you've got pressure kind of

17 everywhere, so they just kind of make it a no go

18 zone. I had some housekeeping items that needed

19 to be taken care of. Number One was the
20 starboard crane that they had just changed out
21 the boom line during routine maintenance, and I
22 had gone up to reset the boom limits as part of
23 my job scope, the electrical limits for the
24 boom. After they had completed the changeout of
25 the cable, we stayed approximately an hour. I

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1 took the chief mechanic with me, who was new to
2 his position, to familiarize him with the
3 operation and kind of give him an idea of what I
4 do versus what his responsibilities on that same
5 job would be. Then we went up and visited with
6 Dale Burkeen, the crane operator. We went
7 through the limits. We stayed for approximately
8 an hour, conducted some tests, made sure, you
9 know, double checked, let the boom go all the
10 way down, bring it all the way back up, tested
11 the limits, and then proceeded back to my shop
12 to take care of the RMS requirements for that
13 job. There had been a job created to reset the
14 boom limits. I needed to go put notes in the
15 system, log my time, my man hours, and take care
16 of some of those issues.

17 Q. Okay. And can you please tell me, when
18 you were in the ET shop, was there anything that

19 indicated that there was a problem that was

20 going on?

21 A. There was -- Just so happened I was on

22 the phone around 9:30 with my wife, and I have a

23 PA/GA rack with -- There's two racks for the PA

24 system. There's one forward and one aft, so you

25 have redundancy. The rack just happens to be in

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1 my shop. And during our phone conversation she
2 heard a gas level being announced from Sperry
3 Sun. Sperry Sun would announce whatever levels
4 of gas was in the mud or coming back or what
5 have you. My wife actually heard the
6 announcement through the telephone, through the
7 speaker, and asked if I needed to get off the
8 phone to go take care of it, and I told her no,
9 it was just an indication to make everyone aware
10 of what the gas levels are. We had gotten them
11 so frequently that I had actually become
12 somewhat immune to them. I'd get to the point
13 where I didn't even hear them anymore,
14 especially with this well because we were
15 getting gas back continuously. It was a
16 constant fight.

17 When the levels reach 200, that's the
18 cutoff for all chipping, welding, grinding, and

19 other outside hot work. That's when I start
20 concerning myself with gas levels. I know then
21 that they're high enough that I don't need to be
22 cutting, wiring, I don't need to be making
23 sparks anywhere of any kind.
24 So at that point is when I really start
25 paying attention to gas levels. Up until then,

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1 that was the only indication I had that
2 something was -- not necessarily out of the
3 ordinary, but something to get your attention.

4 Q. After that occurred, did you hear
5 anything, engine overspeed or any type of
6 problems electronically when you were in the ET
7 shop, sir?

8 A. Can you rephrase that?

9 Q. Was there anything that was out of the
10 ordinary after you heard that alarm? Was there
11 any sounds that indicated that there was engine
12 overspeed or any type of hissing or where it was
13 coming from?

14 A. What happened next was I heard a hissing
15 noise and a thump. Where my shop was located
16 was directly below the riser skate which feeds
17 the riser package into the rig floor. It was
18 not uncommon for the operators to run that skate

19 in reverse to bring it -- to retract it out, and
20 it would hit the mechanical stops in the back
21 and it would literally, you know, thump in the
22 shop. I could hear it bang up there. I heard
23 the thump and I heard the hiss, and at that
24 point I assumed the hissing was a hydraulic leak
25 from them backing the skate out too fast and

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1 hitting the stop too hard, and they may have
2 ruptured a hydraulic line. So I heard the
3 hissing noise.

4 At that point I did get off the phone
5 with my wife. I said, "Hey, I need to go check
6 this out and see what's going on. Make sure we
7 don't have hydraulic oil going everywhere."

8 Right about within seconds of that, I
9 start hearing beeping. Now, the beeping is
10 coming through my ventilation system. There's a
11 crossover between my shop and the ECR because
12 they're adjoining spaces. There's a cross
13 ventilation system in there, and I can hear the
14 panel beeps, which are local panel alarms, and
15 I'm hearing the beep, beep, beep, beep, beep,
16 beep, beep. It's continuous. And I'm thinking
17 to myself, okay, what's going on? You know, do
18 I have a process station acting up? Do I have

19 some erroneous alarms?

20 And I'm trying to put all this together

21 in my head as to the thump, the hissing, and now

22 the beeps. And about the time I considered --

23 Actually, now I know I need to get up. I need

24 to go find out exactly what's happening. As I

25 push back from the table, I hear the engines

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1 start to rev.

2 Now, my shop is located directly center
3 of the rig with engines -- Number 3 is on my
4 port side, Engine Number 4 is on my starboard.
5 Engine Number 3 I know is on line. Simply from
6 walking through the spaces, I knew which engines
7 were on line at any given time. I could hear
8 Engine Number 3 start to rev up, and it's normal
9 operating RPM's to way above what I ever heard
10 it run before, and it's continuously steadily
11 rising, and I knew then that we were -- we were
12 having a problem.

13 As I started to push back from my desk,
14 the computer monitor exploded in front of me.
15 All the lights in my shop popped. The light
16 bulbs themselves physically popped. Now I know
17 we're in trouble. I reached down to grab my
18 door, and at the -- simultaneously of grabbing

19 the handle, the engine goes to a level that is

20 higher than I can even describe it. It's

21 spinning so fast that it just -- It stopped

22 spinning and there's a huge explosion.

23 Q. And after that initial explosion, was

24 there an additional explosion?

25 A. There was. That explosion blew the fire

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1 door that was between me and those spaces off
2 the hinges.

3 Q. The first explosion?

4 A. First explosion. It blew the fire door
5 and myself across the shop, and within seconds
6 the CO system started discharging. The CO2
7 controller was inside my shop as well.

8 I couldn't see anything. I couldn't --
9 I couldn't breathe because of the CO2, there was
10 no oxygen. I crawled across the floor, found
11 the opening, made my way out. I had a small pen
12 flashlight in my pocket that I put in my mouth
13 to try to see. I still couldn't see. I didn't
14 know why I couldn't see. I just doesn't see
15 anything. I made it to the next door by feel.
16 I stayed on my hands and knees because I could
17 feel the heat, and I knew that if there was
18 going to be any oxygen at all, it was going to

19 be down at the bottom. And as I reached the
20 next door, I reached up and grabbed the handle
21 for it. It then exploded. That was Explosion
22 Number 2.

23 Q. And what was the time frame in your --
24 Any idea?

25 A. I have no recollection of time.

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1 Q. Sorry to interrupt you.

2 A. That explosion pushed me back thirty,

3 thirty-five feet into another wall. As I

4 cleared that door, I remember getting really

5 really angry. I don't know why I got angry. I

6 was mad at the doors. The doors were -- They

7 were beating me to death. Two doors in a row

8 had hit me right in the forehead and, you know,

9 planted me against the wall somewhere. My arm

10 wouldn't work, my left leg wouldn't work, I

11 couldn't -- I couldn't breathe, I couldn't see.

12 I knew I had to get outside and get to some

13 fresh air. The CO2 was -- It was overwhelming.

14 As I'm crawling through the ECR, I crawled

15 across the bodies of at least two men. I don't

16 know their condition. I'm trying to get them to

17 respond. They're not responding. I assume

18 they're dead and keep moving because I know that

19 I'm in no condition to help them. I can barely

20 help myself at this point.

21 The flooring inside the ECR was elevated

22 about two and a half feet so that the wire trays

23 and things could run underneath. All the panels

24 for the flooring were missing. There was

25 nothing but grid work. So I was tripping and

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1 falling kind of through this grid work, trying
2 to make my way to the outside water-tight door.

3 I get about half way across it, I can
4 actually start to see the light, a dim light, so
5 I assume I'm headed in the right direction. I
6 keep going towards the light.

7 Eventually I make my way outside. I
8 turn to the right, and the reason I did, I knew
9 what little bit of breeze we had was coming on
10 the starboard forward bow because when I was up
11 on the starboard crane, I had noted the wind
12 direction. What little bit of breeze we had, I
13 noted it so that, you know, you always walk
14 upwind of fire and smoke. So I turned to the
15 right, and as I did, I got my bearings, got my
16 eyes cleaned out enough where I could see, and
17 noticed there was no walkway, there were no
18 handrails, and there was no stairwell left. One

19 more step and I would have went in the water.

20 At that point I looked up at the wall,

21 and the exhaust stacks for Engine Number 3, the

22 wall, the handrail, the walkway, all those

23 things were missing. They were completely blown

24 off the back of the rig.

25 The only course of action from there was

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1 to turn around and go the opposite way, go to
2 the port side, or I had actually turned port. I
3 needed to go back to the left, head toward the
4 starboard side of the rig.

5 There's two lifeboats there on that
6 lifeboat deck, the aft lifeboat deck, and from
7 what I saw, what I heard, and what I felt, I
8 seriously considered launching a lifeboat by
9 myself because I knew that something really
10 really bad had happened, and it wasn't going to
11 get any better any time soon.

12 I had an inclination that -- that this
13 was way worse than anyone could expect. And I
14 thought about it for a second, and I remembered
15 that I had -- you know, I had responsibilities.
16 As a Chief ET, I have an emergency station to go
17 to. The problem was my emergency station no
18 longer existed. It was the ECR.

19 So I made a decision to put my life
20 jacket on right there and try to make my way to
21 the bridge, which would be my secondary muster
22 station. I determined if I couldn't make it
23 there, I was going to come back and launch the
24 lifeboat by myself.

25 I got up to the main deck. When I got

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1 up to the main deck, the hissing noise has now
2 turned into a full-blown roar, and I look at the
3 dog house and the derrick. The dog house is on
4 fire and about half the derrick at this point is
5 on fire. It was then I realized we had a
6 blowout.

7 I made my way to the port side of the
8 rig upwind, walked across the main deck, all the
9 way forward to the bridge. Once I got on the
10 bridge, I reported immediately to the captain
11 that we have no propulsion, we have no power, we
12 have no ECR. He looked at me with that dazed
13 and confused deer-in-the-headlights look, and I
14 said, "You need to understand. We have no ECR.
15 It's gone. It has blown up. Engine Number 3
16 for sure has blown up. We need to abandon ship
17 now." And I just kept saying it over and over
18 and over, and at one point I was told, you know,

19 finally to just calm down, sit down, we're

20 working on it.

21 At that point my supervisor, or one

22 level above me, Mr. Bertone, walked over and

23 assessed my injuries. He went looking for

24 medical supplies. Couldn't find any. In the

25 panic, couldn't find a medic. He grabbed the

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1 nearest thing he could, which was a roll of
2 toilet paper and began to try to stop the
3 bleeding.

4 I got enough of it out of my eyes where
5 I could actually start to see. Got enough
6 toilet paper on my head to stop the flow of
7 blood into my eyes, and I remember him asking
8 about the standby generator, if it --

9 Q. Who did?

10 A. Mr. Bertone. I remember him asking
11 about the standby generator. He was -- He asked
12 the captain, "Do you want me to start the
13 standby generator?" And he said, "Will it give
14 me fire pumps or any propulsion?" He said, "No.
15 It's going to give us lighting, and it will give
16 us the ability to bring engines back on line
17 later," knowing that you have to have the
18 standby generator to power the air compressors

19 which start the main engines.

20 No one volunteered to go with Mr.

21 Bertone to try to start this generator, and I

22 would have to say that because you have to go

23 back to the -- you have to go back to the fire.

24 The generator was located adjacent to the

25 derrick. As he was on his way out the door, it

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1 kind of dawned on me that no one volunteered to
2 go with him. We were sending a man alone by
3 himself to go try to start this generator, and
4 if there was going to be any success in that, we
5 needed more than one man. I grabbed him by the
6 shirt tail and said -- and told him, "You're not
7 going by yourself. I'm going with you." He
8 objected several times, and I said, "Well, if I
9 don't go, you don't go. You're not going by
10 yourself."

11 At that point another man, Paul, I
12 believe was his name, grabbed hold of my shirt
13 tail, and we went in line, three of us, back to
14 the fire.

15 We crossed the moonpull area on the main
16 deck, proceeded into the standby generator room,
17 made several attempts to start this generator.
18 I don't know how long we were in there. Five,

19 ten, fifteen minutes. I don't know. We made
20 several attempts. We followed the procedure
21 that was located there at the generator several
22 times. We tried some other things that Steve
23 thought of -- as an electrical supervisor, he
24 was very familiar with the standby generator --
25 and we couldn't get it to respond. I could get

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1 the 24-volt signal to come on telling me that
2 the batteries were available, but the engine
3 wouldn't do anything.

4 At that point, Steve and I decided to
5 stop the attempt and make our way back to the
6 bridge and to report -- you know, report our
7 findings to the captain.

8 On our way back to the bridge is when I
9 noticed I believe it was Lifeboat Number 1 had
10 descended and was motoring away. They had
11 descended and disconnected from the rig.

12 As we got back in the bridge, the
13 captain announced that he had given the order to
14 abandon ship, that the -- it was a lost cause.

15 We weren't going to be able to fight this fire.

16 That it was time to leave.

17 As we were making our way down the
18 ladderway to get to the lifeboats, Lifeboat

19 Number 2 descended. So now there are -- The two
20 forward lifeboats are both gone. They're both
21 unavailable. Once they go down, there's no
22 coming back up because we had no power. There
23 was a thought, and someone made mention of can
24 we make it to the aft lifeboats, and does anyone
25 know their condition? And I said, "I came from

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1 there. When I left there, they were in good
2 condition. I didn't see any physical damage and
3 I didn't see any fire on the lifeboat deck aft."
4 But there was going to be a huge risk of going
5 back across the main deck to get back there
6 again. There's several minor explosions
7 occurring, things are falling, you can hear
8 stuff popping. We didn't know which way the
9 derrick was going to fall when it did fall. I
10 guess it's general knowledge if you cook a
11 derrick long enough, eventually it's going to
12 fall down, and we didn't know when that was
13 going to be and didn't want to risk walking
14 through there and have it fall on us.

15 So the decision was made to try to
16 launch a life raft. There were three life rafts
17 available to us, and after what seemed like
18 forever, we finally got one life raft deployed.

19 We had an injured man with us in a
20 stretcher, Wyman Wheeler, toolpusher, and our
21 first concern was to get him loaded. We were
22 having difficulties with the raft at that angle
23 at which it deployed. There was something hung
24 up in the davit or in the arm. I'm not sure
25 what, but there was a terrible angle between the

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1 rig and the life raft. The life raft was not
2 sitting level.

3 The concern was that we would get him
4 partly in the door and the raft may swing out
5 and then him fall into the water. Eventually
6 they got him loaded, and there was a crowd of
7 folks there trying to get into this small
8 opening. I remember grabbing two people and
9 backing them up against the wall.

10 We had about a 20-foot bulkhead behind
11 us that would shield us from the derrick. The
12 fire at this point is completely out of the top
13 of the derrick. Things are popping, things are
14 falling, things are starting to fly. There's
15 projectiles coming from everywhere. There's
16 just stuff flying everywhere. The smoke and the
17 heat are intense even at the bulkhead. I guess
18 there was some type of back draft occurring

19 underneath the vessel, and it was starting to

20 wrap around and feed itself.

21 At that point I wasn't sure that the

22 life raft was going to survive. There was so

23 much heat coming up, I thought for sure the life

24 raft was going to pop or melt, and the people

25 inside were going to cook.

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1 As we were waiting for an opening to
2 develop for us to go in to get in the life raft,
3 when the hole finally developed and everyone had
4 gotten in, the life raft deployed.

5 So there we sat, three of us, with no
6 life raft and no lifeboats. There were two more
7 life rafts at our disposal, but as long as it
8 took the first one to deploy, I honestly didn't
9 feel like we would survive trying to deploy a
10 second one. I didn't know if us three -- me in
11 my condition, and I didn't know the condition of
12 the other two people -- if we could successfully
13 deploy another life boat.

14 It was at that point that I informed the
15 other two individuals that we can stay here and
16 die or we can jump, and then I remembered that
17 in our training they teach you to reach your
18 hand around your life jacket, grab your ear,

19 take one step off, look straight ahead, cross

20 your legs, and fall.

21 The problem with that is there's now a

22 life raft down there at the bottom. So if we

23 had done that, we would have potentially landed

24 on the life raft, killing ourselves, injuring

25 ourselves or the people inside.

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1 I remember telling a young woman that
2 was beside me that we're going to have to run
3 and jump. I remember her responding, saying
4 that she couldn't jump, she couldn't jump, and I
5 remembered seeing the other individual go and
6 jump. I said, "He just did it. You've got to
7 do it." She kept saying she couldn't do it, and
8 I said, "Well, watch me then," and I took off
9 running and I jumped. I cleared the life raft
10 by a pretty good ways.

11 Once I hit the water, when I came back
12 up, I couldn't see anything again because now
13 I've got a new set of problems. I've got oil,
14 hydraulic fluid, gasoline, diesel, whatever it
15 is that's floating on the water is now burning
16 my entire body. I'm now covered in this sludge.
17 I don't know what it is. It's burning, I can't
18 hardly breathe, but I can feel the heat from the

19 fire underneath the vessel.

20 At that point I started back stroking

21 with the one arm and one leg that would work

22 until I remember feeling no pain, I remember

23 feeling no heat and thinking that that was it, I

24 had died.

25 Sometime later something apparently woke

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1 me back up, a pop or explosion, something, and I
2 remember feeling the heat again, starting to
3 feel the pain come back, thinking I've got to
4 swim. I've got to swim. I started swimming
5 again, and then I heard something in the
6 distance. I heard, "Over here, over here." I
7 was thinking to myself: What in the world can
8 that be? And whatever it is, I'm going to go to
9 it, and just started swimming as hard as I could
10 to get to it.

11 At one point I didn't hear the noise
12 anymore, I didn't feel the pain anymore, and
13 then I felt something start lifting me out of
14 the water. A small orange rescue craft, small
15 boat had grabbed me and flipped me over into the
16 boat. I remember telling him that, "We need to
17 get away from this fire. It's bad." I didn't
18 know if he knew even what was going on, but I

19 was letting him know that the situation we were

20 in was terrible.

21 He said, "I can't leave. There's more

22 people in the water. I see more lights." So we

23 went to the next light that we saw in the water

24 and retrieved that person, who was Andrea, the

25 dynamic position operator. We retrieved her

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1 into the small rescue boat.

2 At that point I said, "Look, now can we
3 leave?" And the guy said, "No. There's a raft
4 in the water." And I see more lights in the
5 water. We proceeded to go back towards the rig
6 again.

7 Now we're close enough that I can feel
8 the heat, I'm starting to feel the heat again,
9 and I see the boat over there, the life raft,
10 and it's literally still under the rig, and I
11 can see people outside of it. I could see the
12 lights in the water. I can't see what they're
13 doing, but I know there's people outside the
14 life raft.

15 We get up to them, throw them a line,
16 they get tied on, and I recognize one of the men
17 as Chad Murray, chief electrician, and he kept
18 asking me for a knife, and I said, "I don't have

19 a knife." Transocean's policy is no pocket

20 knives.

21 As we're pulling the life raft away from

22 the boat, the painter line was still attached.

23 According to our training that we had on every

24 Sunday for my entire oilfield career, it says

25 that there is a cutting device inside the life

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1 raft to cut the painter line. Well, in the
2 panic, in the darkness and whatever, they
3 couldn't find this cutting device, and as we're
4 trying to pull the life raft away from the rig,
5 we're not moving. We're just simply stuck.
6 Finally one of the gentlemen that was in the
7 life raft or in the rescue boat had some sort of
8 pocket knife, and we got it to them, and they
9 cut -- they cut the line loose, and we pulled
10 ourselves over to the DAMON BANKSTON.

11 Q. Thank you. Just to go back, earlier you
12 had mentioned that there was several alarms
13 going off indicating that there was a high gas
14 level when you were on the phone with your wife;
15 is that correct, sir?

16 A. The alarm with my wife was a high gas
17 level from Sperry Sun which came over the
18 intercom system.

19 Q. And do you know at what level? I think

20 you said 200 parts per million?

21 A. At 200 units of gas, that's where all

22 welding, chipping, grinding and the hot work

23 have to cease.

24 Q. Okay. And then you said you started

25 hearing some local panel alarms. What actually

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1 panel were you referring to?

2 A. The -- In the ECR and the CCR there are
3 operator stations for the Kongsberg SIMRAD
4 vessel control system, and those are the local
5 panels that the HMIs, human machine interface,
6 that's where they get all their data, and that's
7 how they control all the functions on the rig.

8 Q. Thank you. Did you at any time hear any
9 alarm that would indicate a general muster or --

10 A. Never.

11 Q. Are you familiar with that alarm that
12 I'm referring to, sir, the general alarm?

13 A. Yes, sir.

14 Q. Can you please explain to me how that's
15 set up from the chief electronic technician,
16 your general knowledge, how that alarm is set
17 up?

18 A. The general alarm is set up to inform

19 the entire rig of any of three conditions.
20 Number 1, fire; Number 2, combustible gas;
21 Number 3, toxic gas. Each one of those
22 conditions has a distinct tone and a distinct
23 visual light. We have light columns throughout
24 the rig. One red -- Within the column there's a
25 red, a yellow, and a blue, with the red being

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1 fire, yellow being toxic, blue being
2 combustible. So you get an audio tone and a
3 visual tone with every general alarm.

4 Q. Did you get either one of those alarms
5 on the evening of April 20th?

6 A. No, sir.

7 Q. Do you know why you never got that
8 alarm, sir?

9 A. Yes. They were bypassed.

10 Q. And how do you know they were bypassed,
11 sir?

12 A. Because I physically seen it on the
13 screen. They are actually what's considered
14 inhibited. Not bypassed. The correct word is
15 inhibited.

16 Q. I'm sorry. Could you please explain to
17 me what inhibited means then? I'm sorry.

18 A. You have four states of alarms. You

19 have a normal operating condition, you have an
20 inhibited condition, which simply means that the
21 sensory is active, it is sensing, and it will
22 alarm and it will give the information to the
23 computer but the computer will not trigger an
24 alarm for it. It will give you the indication,
25 but it won't trigger the actual alarm. Then

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1 there's an override condition, which means that
2 the computer will not consider that sensor for
3 any purpose.

4 Q. Were there any alarms that were in the
5 override position?

6 A. None that I'm aware of.

7 Q. If -- And I'm not familiar with the
8 DEEPWATER HORIZON's alarm system. If you get
9 two high gas alarms in one area, say the engine
10 room hypothetically, would that actually shut in
11 the engines, or would it shut in the air intakes
12 or the rig savers?

13 A. That would be a bad analogy because
14 there are no gas sensors in the engine room.

15 Q. Okay.

16 A. How the system works is there are
17 several toxic and combustible gas sensors
18 located in key areas, mainly around the drilling

19 package. The drilling package being the key.
20 Secondary is all the air intakes, and the air
21 intakes could be anything from the
22 accommodations to the engines to machinery
23 spaces. Anywhere fresh air flows. All spaces
24 are controlled with a positive -- or a fan
25 forced air in and an exhaust, so that you

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1 continuously have air circulating through the
2 spaces. When you get two detectors to go into a
3 high state in one zone, what is supposed to
4 happen is the ESD for that zone should trip,
5 which is your emergency shutdowns, and you
6 should also sound the generator alarm.

7 Q. Do you know why this was inhibited on
8 the DEEPWATER HORIZON, the system?

9 A. When I discovered it was inhibited about
10 a year ago, I inquired as to why it was
11 inhibited, and the explanation I got was that
12 they -- from the OIM down, they did not want
13 people woke up at 3:00 o'clock in the morning
14 due to false alarms.

15 Q. Did you voice a concern to anyone about
16 the possible safety issues with that?

17 A. Yes, sir, I did.

18 Q. And who did you voice those to, sir?

19 A. To the senior DPO that was on watch that
20 day and to my supervisor.

21 Q. And who were they, sir?

22 A. One was Tom Fields was the supervisor,
23 who is no longer employed by Transocean. The
24 other one was Steve -- I'd have to look in my
25 notes to remember his last name -- who is also

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1 no longer employed with Transocean.

2 Q. Would Mr. Bertone know that those alarms
3 were inhibited?

4 A. In his normal course of duties, he
5 wouldn't see that page.

6 Q. Thank you. Who actually recommended
7 that they keep it in an inhibited state? Who on
8 the rig was in charge of that system?

9 A. The operators, the BP operators, were
10 the first level. The second level would have
11 been Senior DPOs. The third level would have
12 been the first -- chief mate. The next level
13 would have been the captain, and then ultimately
14 the OIM.

15 Q. Were they all aware that the systems
16 were inhibited?

17 A. Yes, sir.

18 Q. If these systems weren't inhibited,

19 would it have prevented the initial explosions
20 in your mind? I know it's your opinion. I'm
21 not trying to put you knowing the cause of the
22 incident, but if these systems were in place and
23 actively running, would it, one, allow personnel
24 to get into an area that was safe and, two,
25 would it have caused an explosion on the

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1 engines?

2 MR. BICKFORD:

3 Let me just register an objection.

4 I don't know that this witness has the

5 capabilities to make that determination.

6 CAPT NGUYEN:

7 Let him state what facts he knows

8 about how the system is configured and all

9 that.

10 THE WITNESS:

11 When you get two detectors to go

12 high in one zone, the ESD for that affected

13 zone should trip. That ESD is going to

14 control your fire dampers and your power and

15 your 11KV switchboards. All of those

16 things should trip. Air supplies,

17 water-tight dampers, all those things for

18 that affected zone should trip. Also,

19 you're going to sound the generator alarm.

20 That's how the system is designed.

21 BY MR. MATHEWS:

22 Q. Do you know from your position if either

23 the Coast Guard or the flag state had ever given

24 approval for that to occur, sir, to have these

25 systems inhibited?

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1 A. I don't know.

2 Q. I'm going to move on to another subject
3 now, sir. Yesterday we had Ms. Natalie Roshto
4 here, and she referred to this well as a, quote,
5 well from hell. Have you heard that term
6 before?

7 A. Yes, sir, I have.

8 Q. Was that something that was common on
9 the rig?

10 A. Yes, sir, it was.

11 Q. And why -- What is that being pulled
12 from? Why well from hell?

13 A. On a prior well over in Devil's Canyon,
14 I believe it's called, or Devil's Tongue --

15 Q. Devil's Tower?

16 A. Devil's Tower. We had experienced a
17 well very similar to this where we lost
18 circulation, got stuck, had to have Wild Well

19 Control come out and we ended up ultimately
20 severing the pipe by putting a shot into the
21 pipe, and we lost the well completely. And now
22 we're back in another quadrant or another zone,
23 but this well exhibited a lot of those same
24 characteristics where we lost circulation, we're
25 getting tons of gas back all the time, we got

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1 stuck, we had to sever the pipe. It was
2 just -- It was deja vu all over again. The well
3 from hell was coined during the Devil's Tower
4 well simply because of the location, I think.
5 You know, with the terminology, Devil's Tower.
6 If I remember correctly, it was Stephen Curtis,
7 the AD, who at the time was the deck pusher who
8 coined the well from hell, who's now deceased.

9 Q. How long were you at the MC252? Were
10 you on the DEEPWATER HORIZON throughout its
11 duration in MC252?

12 A. Yes, except for my time off.

13 Q. Time off. Okay. At any time did you
14 hear a BP well site leader request that the
15 driller -- and I think I pulled this from your
16 60 Minutes interview -- let's pump it up?

17 A. Yes.

18 Q. What was he referring to, sir?

19 A. He was talking about the rate of

20 penetration.

21 Q. And was there any pending results of

22 that comment? Anything occur after that?

23 A. Within days we lost circulation. We

24 blew the bottom out of the well.

25 Q. So the driller actually picked up his

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1 rate of penetration?

2 A. Yes.

3 Q. Also I think in the same interview I
4 referenced on 60 Minutes I think you had
5 indicated that you saw, I quote, chunks of
6 rubber from the BOP's upper annular; is that
7 correct, sir?

8 A. Yes, sir, it is.

9 Q. Can you please discuss that.

10 A. The hitch prior to the accident, which
11 would have put it back about five weeks, I was
12 in the drill shack dealing with A-chair which is
13 a whole other issue. While troubleshooting and
14 working on that system, a Sperry Sun
15 representative walked into the back of the dog
16 house, and he had in his hand a double handful
17 of annular -- what appeared to be me to be
18 annular rubber. The only thing in the hole at

19 that time in my mind is the annular. I mean
20 it's the only thing rubber down there.
21 Everything else is pretty much steel. As he
22 delivers these chunks of annular rubber, I look
23 at the senior subsea supervisor, and I literally
24 asked him, "What the hell is that?" He said,
25 "Oh, no big deal. That's normal."

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1 Q. And who is that, sir?

2 A. That would have been Mark Hay.

3 Q. And was any work done on the BOP stack

4 after that or --

5 A. To my knowledge, no.

6 Q. To your knowledge.

7 A. Now, it took me a few days to understand

8 or to formulate why we were getting chunks of

9 rubber back. There was an incident prior to

10 that where we were in testing mode and the

11 annular was closed around the drill pipe. I got

12 a call from the night-time toolpusher to come

13 investigate whether or not there was an input to

14 the stick to hoist the block while the annular

15 was closed, and I inquired as to why he needed

16 to know that. He said, "Well, the block moved

17 about 15 or 20 feet. We need to know why. We

18 need to know if it was inadvertent stick

19 movement or if it went up by itself." Myself,
20 the electrical supervisor, Tommy Daniels,
21 conducted an investigation, it was an informal
22 investigation, and got into the chair log data
23 and dissected the data. What we determined was
24 one of the sticks was moved in the positive
25 direction. What we could not definitively

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1 determine was which stick. The tag system
2 inside the log was not accurate enough. It
3 simply said, "Joystick A, Joystick B," and we
4 could not find a cross reference as to which
5 stick that was, but we did confirm that there
6 was stick input. We relayed that information
7 back to the toolpusher that, yes, indeed, a
8 stick was pushed, but we could not confirm which
9 stick. One of them had been given an input
10 command. The drill string moved 10 to 15 feet
11 with the annular closed prior to the chunks of
12 rubber coming up.

13 Q. Just for my notes, who is Tommy Daniels?

14 A. Tommy Daniels is an electrical
15 supervisor.

16 Q. I want to keep on the topic of BOPs. In
17 the panel was there ever any problem with a
18 pressure regulator valve?

19 A. Yes, sir, there was.

20 Q. Could you please elaborate on that, sir.

21 A. At about around the same time of the
22 inadvertent stick movement, there was an issue
23 with the BOP control panel purge system.

24 How that system works is the dog house
25 itself is purged, so it's positive pressure, and

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1 the panel inside the dog shack is also purged,
2 so you have two purged systems running
3 simultaneously. Another toolpusher, Mr. Wyman
4 Wheeler, had held the back door open to the dog
5 house for an extended period of time, and the
6 drill shack lost purge. It's not uncommon to
7 lose purge with you got a lot of people going in
8 and out. It just takes a couple of seconds for
9 it to build back up. But during this extended
10 time period of him having that door open,
11 someone had opened both of the glass access
12 doors to the BOP control panel, and it lost
13 purge. When it lost purge, I got a phone call
14 saying the BOP panel is dead. I got the call
15 from the AD on tower, who was also one of the
16 deceased, Don Clark, that I am to get to the rig
17 floor immediately, the BOP panel is dead.
18 Before I got up there, Mark Hay had already

19 arrived and switched that panel to bypass mode.

20 I informed him that I had worked on that system

21 on the last rig move and that I had discovered

22 what the issue was with it, and that I had parts

23 ordered and that it was actually running in

24 automatic. If he would give me two to three

25 minutes, I could get the panel back started in

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1 automatic so that it would work properly.

2 The repair that I made wasn't really a
3 repair. It was a -- It was I tricked the system
4 to start in automatic mode. Once it would
5 start, it would stay running unless it lost
6 purge. At that point it would go -- it would
7 go -- it would power down. When it loses purge,
8 the whole purpose is you want to power it off
9 because it thinks that gas may be in there or
10 something or the other that's combustible.

11 I had tricked it into running automatic
12 during the last rig move, so it was running in
13 the automatic mode for a period of weeks. It
14 wasn't until it lost purge that it turned itself
15 off.

16 And I asked Mark Hay, "Do you want me to
17 start it back in automatic?" And his exact
18 words were, "No. The damn thing's been in

19 bypass for five years. Why did you even mess

20 with it?" He said, "Matter of fact, the entire

21 fleet runs them in bypass.

22 Q. Earlier you said something when I asked

23 you a question about the problems coming up the

24 annular of the BOP, you made reference to

25 another problem called the A-chair.

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1 A. Yes.

2 Q. Can you just tell me what was going on
3 with the A-chair, sir?

4 A. the A-chair is located in the dog house.
5 That is the main operating point for the driller
6 to control all drilling functions. It controls
7 everything from mud pumps to top drive,
8 hydraulics. It controls everything.

9 For three to four months we've had
10 problems with this computer simply locking up.
11 I forget what we -- We even coined a term, the
12 blue screen of death, because it would just turn
13 to a blue screen. You would have no data coming
14 through.

15 Inside the dog house there's also a B
16 Chair. There's actually three chairs total, A,
17 B, and C, and C is located in the assistant
18 driller shack, which is a short distance away on

19 the other side of the drill floor.

20 We had ordered replacement hard drives

21 from the manufacturer. We had actually ordered

22 an entire new system, new computers, new

23 servers, new everything to upgrade it from the

24 very obsolete operating system that it was

25 using. Those computers were actually using

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1 Windows NT, which is a very unstable platform to
2 begin with.

3 Between the manufacturer and the rig,
4 they could not get the bugs worked out of the
5 new operating system. They couldn't get the old
6 software to run correctly on the new operating
7 system.

8 Our sister rig, the NAUTILUS, was going
9 through those growing pains kind of for us. We
10 had already ordered all the equipment. We were
11 just waiting on them to figure it all out so
12 that we could copy their learnings and make it
13 work on our rig.

14 Meanwhile, we were limping along with
15 what we had. We had ordered new hard drives.
16 They came in. We replaced the images on the
17 hard drives for the software imaging, got them
18 back running, the chair would run for two, three

19 days, and they would crash again.

20 Tommy Daniels was instrumental -- I

21 can't tell you how many hours or days he spent

22 focused entirely on getting these chairs

23 resolved.

24 Being new to his position as electrical

25 supervisor, he took it upon himself that he was

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1 going to resolve the issue. He was still
2 working towards that up until the time of the
3 explosion. It had not been resolved.

4 Q. To your recollection, while you were at
5 The DEEPWATER HORIZON -- I think it was there
6 for roughly three months -- was there ever an
7 incident or a kick when the A-chair was down or
8 any well control issue?

9 A. Not during that well, to my knowledge.
10 On prior wells, there was.

11 Q. And do you know how long ago that
12 incident was, sir?

13 A. Not exactly.

14 Q. But the A-chair was down during an
15 incident --

16 A. Correct.

17 Q. -- in the history of the --

18 A. The chair crashing -- It was internally

19 discussed that the chair crashing caused the
20 kick, because they lost all -- They lost all
21 communications to the drill package. They had
22 no way to monitor anything for several seconds,
23 and before they could get the B Chair up, they
24 had taken a kick.

25 Q. And I want to back up because you

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1 mentioned something that I wrote down and I want
2 to go back to something we had talked about
3 earlier. You had said that -- When we were
4 talking about the pressure regulator valve on
5 the BOP panel, you said there was a
6 Transocean -- I think you said there was a
7 policy that they had those in bypass on the
8 entire fleet?

9 A. Yes. Not necessarily a policy. I was
10 just told that the entire fleet runs them in
11 bypass.

12 Q. Okay. Do you know anything about the
13 inhibited alarms on the other fleet? Is that
14 anything that you may be aware of?

15 A. All I can speak to is that when I was on
16 the DEEPWATER MILLENNIUM, which is a drill ship,
17 that I was rolled out of bed at 2:00 o'clock in
18 the morning for an alarm that had gone off, a

19 general alarm.

20 Q. Okay.

21 A. So I would have to say that theirs

22 weren't bypassed, with my experience of getting

23 up out of bed because of them.

24 Q. Okay. (Inaudible) review a few audits

25 on the maintenance of the DEEPWATER HORIZON.

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1 Can you touch upon the pipe racking system on
2 the DEEPWATER HORIZON? Are you involved with
3 the maintenance of that system, sir?

4 A. Yes.

5 Q. And what condition was that in?

6 A. Junk.

7 Q. Junk. Could you please elaborate how
8 long it was malfunctioning or not being
9 maintained to your satisfaction?

10 A. From the time I started till the
11 accident.

12 Q. At any time Did BP or Transocean or
13 anyone say, "Guys, we've got to stop and fix
14 this piece of equipment," or was it just --

15 A. Continuously. That was our Number 1
16 downtime cause.

17 Q. Also, in some of the testimony we had
18 been informed, I think by Mr. Bertone and

19 someone else that was -- I think it might have
20 been Mr. Ronnie Sepulvado who was a well site
21 leader, who indicated that the rig was actually
22 scheduled I think to go to the shipyard for some
23 repairs. Were you aware of that?

24 A. Yes, I was.

25 Q. What were you scheduled to do during

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1 that time frame when it went to the shipyard?

2 Were you going to be involved in that?

3 A. My part of it would have been the
4 complete rewiring of both pipe racking systems.

5 Q. Complete rewiring?

6 A. Yes. Top to bottom.

7 Q. And who would assign that to you? Was
8 that assigned from --

9 A. It would have come down from the
10 electrical supervisor.

11 Q. Were you aware of the MODU spec audit
12 that occurred April 1 to April 14 of 2010, sir?

13 A. I was, but I was not a part of it.

14 Q. Did anyone present any of those findings
15 to you?

16 A. No, they didn't. I was anticipating
17 getting them during that hitch.

18 Q. One thing the audits also mentioned was

19 that there was a personnel-retaining issue on
20 board DEEPWATER HORIZON. Is that accurate?

21 A. Yes.

22 Q. Did you have any issues within your
23 maintenance responsibilities because of that?

24 A. No.

25 Q. Was there a Transocean group that was a

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1 temporary work staff that would come and assist
2 when maintenance was needed?

3 A. Yes, sir.

4 Q. Were they as qualified or as competent
5 as those that were normally on the rig?

6 A. To my knowledge, yes.

7 Q. Where did those temporary workers come
8 from?

9 A. Displaced from other rigs and new hires.

10 Q. Were they familiar with the systems they
11 were working on under your supervision?

12 A. The last two that I got from there were
13 not. They were familiar with electronics but
14 not our specific electronics.

15 Q. Do you know who had any control over the
16 personnel issues on the DEEPWATER HORIZON?

17 A. No, I don't.

18 Q. Thank you, sir. I have no further

19 questions.

20 EXAMINATION

21 BY MR. McCARROLL:

22 Q. Mr. Williams, just a couple of

23 followups. Were you on the rig in 2008?

24 A. Yes, sir, I was.

25 Q. Are you familiar with the blackout or

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1 brownout that occurred at that time --

2 A. Yes, sir, I am.

3 Q. Do you have any knowledge that you could

4 explain what happened?

5 A. I cannot. I was part of the deck crew

6 then.

7 Q. Okay.

8 A. And I was at work out on the deck when

9 it went dark. It was light outside for us. The

10 only thing we knew is that the crane shut down.

11 Q. Do you work on the BOP system or the

12 purge disconnect system?

13 A. No, sir, I have not.

14 Q. No more questions. Thank you.

15 EXAMINATION

16 BY MR. WHEATLEY:

17 Q. Good morning. I just have a few

18 questions here for you. Mostly for

19 clarification for myself and hopefully others.

20 You indicated you were familiar with the

21 gas-forming system in the sensor; is that

22 correct?

23 A. Yes, sir.

24 Q. Were you basically familiar with the

25 location of those sensors on board the vessel?

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1 A. Yes, sir. I visited every one of them.

2 Q. You indicated you were familiar with the
3 ventilation system and the automatic shutdowns;
4 is that correct?

5 A. Yes, sir.

6 Q. Would you be familiar with the locations
7 of those intakes in the automatic shutdowns on
8 board the vessel?

9 A. I could find every one of them.

10 Q. You also indicated you were familiar
11 with the emergency shutdown system, the EDS
12 system, as well. Are you familiar with the
13 locations where that -- those indicators are
14 located as well?

15 A. Yes, sir, I am.

16 Q. Okay. What I'd like to do at this point
17 is we have a couple of schematics here I'd like
18 to put up and then ask you, if you could, go up

19 to those and then indicate the location where
20 the gas alarms are.

21 Here, sir, I'm going to give you a blue
22 pen here, and if I could, just for purposes of
23 identifying the exhibit, it's described as
24 DEEPWATER HORIZON.

25 CAPT NGUYEN:

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1 Mr. Williams, why don't you use
2 that microphone when you speak. Okay.

3 BY MR. WHEATLEY:

4 Q. The diagram we have up here has been
5 described as the DEEPWATER HORIZON Safety and
6 Fire Control Plan, Plan of the Second Deck.

7 What I'd like you to do is to go up to that
8 diagram, if you could, if you could take the
9 blue marking pen and then draw a circle around
10 the gas sensors that you know are located on
11 that level in and around the engine room.

12 UNIDENTIFIED SPEAKER:

13 Can we pull this out further so
14 that he can --

15 LT BUTTS:

16 Certainly.

17 THE WITNESS:

18 That's better. The engine rooms

19 themselves do not have gas detectors in them.

20 BY MR. WHEATLEY:

21 Q. Are there some located on that level of

22 the DEEPWATER HORIZON?

23 A. Yes.

24 Q. Could you please indicate by drawing a

25 circle around where those locations are.

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1 A. (Witness complies). In the sack room
2 ventilation system, there are a toxic and
3 combustible. Inside the pit room itself there
4 was a set here, a set here, and a set about
5 here. The pump room we're not seeing, there's a
6 whole other set down in the pump room, and the
7 sack room ventilation, the main deck vents up
8 here on both sides of the rig had toxic and
9 combustible. Those would be on the main deck
10 level. And we're not seeing -- we're not seeing
11 the shell shakers on this level.

12 Q. When those alarms activate, where would
13 you see the indication that they had activated?

14 A. You would see the indication at the CCR
15 and the ECR fire and gas control panel.

16 Q. Could you take that blue pen and also
17 drew a circle around the location of those,
18 please.

19 A. CCR forward, central control room, ECR

20 aft.

21 Q. Thank you, sir. You may sit down.

22 I'm going to ask you a little more information

23 about the gas detection system which you

24 previously described as you experienced it on

25 the evening of the 20th. If you could, just

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1 kind of take us in a step by step fashion.
2 Describe how the gas detection system is set up,
3 what happens when an alarm activates, and then
4 the sequence of events that are set in motion by
5 that alarm.

6 A. Any detector that's in a normal state
7 can go to a high state or a high high state,
8 depending on the level of gas or toxins that are
9 present in the atmosphere. When you get two of
10 those detectors to go high high in one
11 designated zone, or if you get one detector in
12 two adjoining zones, the system ESDs at that
13 point should trip, shutting down the air and
14 electricity to that space. At the same time the
15 generator alarm should sound, and the individual
16 alarm panels in the ECR and the CCR should also
17 sound.

18 Q. Are the engine rooms in a single zone or

19 are there separate zones for each individual

20 engine room?

21 A. In regards to the fire and gas system,

22 the engines only had a thermal detector in them.

23 They didn't have a gas detector actually in the

24 engine space. The only thing -- The only gas

25 detection they had for those was for the air

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1 intakes. The air intakes had the gas sensors
2 mounted to them.

3 Q. So each individual air intake has a gas
4 sensor?

5 A. Not exactly.

6 Q. Please explain.

7 A. The two circles that I drew on the port
8 and starboard side of the rig, those were what
9 we considered the main air intakes for the
10 engine spaces. So one side would feed three
11 engines, the other side would feed the other
12 three engines.

13 Q. Now, I believe we've been told that each
14 one of the engines turbos has a separate air
15 intake; is that correct?

16 A. Yes.

17 Q. Okay. Does each one of those have a
18 separate sensor?

19 A. No, sir, they do not. Not to my

20 knowledge.

21 Q. When you describe the fact that

22 basically you have to have two alarms activate

23 to the high high state within the same zone,

24 what would set that in motion, for example, in

25 the series of events that you described on the

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1 20th?

2 A. What would set the alarms in motion?

3 Q. You explained you started to hear the

4 engine over speed?

5 A. Yeah.

6 Q. And you had heard the gas alarms

7 trigger?

8 A. What I heard were local alarms on the

9 panel. I had no idea what type of alarms they

10 were. I could just hear the beep, beep, beep on

11 the panel. I didn't know what alarms they were.

12 I didn't assume anything. I just knew I had a

13 bunch of alarms coming in, one on top of the

14 other. As fast as they could acknowledge them,

15 another one as going off behind it.

16 Q. So you were not aware of where those

17 alarms were going off --

18 A. No, sir.

19 Q. -- as far as location?

20 A. No idea.

21 Q. I believe you indicated that the gas

22 detection system is also tied into the

23 ventilation system automatic shutdown process;

24 is that correct?

25 A. Yes, sir, through ESDs.

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1 Q. Could you describe for us in a little
2 more detail how that happens?

3 A. We have three ESD panels located
4 throughout the rig. One in the ECR, one in the
5 CCR, and one in the driller shack. They're
6 stand-alone manually operated ESD panels.
7 Each -- There's I want to say between twelve and
8 fourteen buttons on that panel, and each button
9 corresponds to a set of functions that are going
10 to occur if you press it. You know, emergency
11 shutdown for -- for, say, the driller package
12 was ESD Number 4. I'm familiar with it because
13 we just recently tested it. And, you know, it
14 would shut down the -- It shut down the power to
15 the rig floor basically, shut down their air
16 conditioning, shut down their hydraulics, it
17 shut down the top drive, the block. I mean it
18 shut it all down, and it shut down the air

19 intakes. So it functioned in manual mode.

20 We never tested the automatic feature,

21 to my knowledge. I never tested the automatic

22 function of it. We did not go introduce gas

23 somewhere to see what it would do. It was just

24 understood that it would work.

25 Q. Now, you indicated that when the series

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1 of alarms would go off that if you had two in
2 the same zone it would trigger the ESD system.
3 With respect to shutting down a main engine, can
4 you describe for us the sequence of events that
5 would happen if those alarms were triggered?

6 A. If the fire dampers closed, you would
7 lose your air intake to the engine. The engine
8 would suffocate for lack of oxygen. I can say
9 that Tommy Daniels explained to me one time that
10 an ESD got tripped by him accidentally, it shut
11 down an engine ventilation intake, and it sucked
12 the fire doors off the hinges, and the engine
13 kept running. It was looking for air and it
14 just literally sucked the doors off the hinges.
15 So those ESDs were never tested because of that
16 risk. So the function of them was to snuff out
17 the engine. If it can't get air, it can't run.

18 Q. Sir, are you familiar with the term rig

19 saver?

20 A. Yes.

21 Q. Would you tell us what that is.

22 A. I honestly don't know.

23 Q. We've heard some previous testimony from

24 the chief engineer concerning the emergency

25 generator, and you gave us quite a bit of detail

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1 concerning your efforts in trying to start the
2 emergency generator following the initial series
3 of explosions. Is it your understanding -- and
4 I refer to that -- excuse me -- I believe it's
5 termed a standby generator --

6 A. Standby generator.

7 Q. -- rather than an emergency generator.

8 Could you tell us what's the difference between
9 a standby and emergency?

10 A. Emergency generator would give you
11 entire rig power where a standby generator is
12 available to do very little, honestly. It's
13 there to assist you to get your main generators
14 back on line.

15 Q. Okay. Now, are you familiar with what
16 happens if you have an engine running and a
17 generator running and for some reason it trips
18 off the line, is there a standby ready to pick

19 up the load?

20 A. All the time.

21 Q. All the time. So in this case here if

22 the Number 3 engine tripped off the line,

23 exploded for whatever reason, there was a

24 designated secondary engine that should have

25 started and picked up the load?

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1 A. Correct.

2 Q. If, in fact, that secondary engine does
3 not start, what happens?

4 A. Within ten minutes the standby generator
5 should have cranked.

6 Q. You mentioned the term within ten
7 minutes, and I believe that's also what the
8 chief engineer explained to us. Is it your
9 impression that that restart within ten minutes
10 is basically automatic, that nobody needs to
11 push additional buttons or switches or turn
12 valves or anything else to make that happen?

13 A. That's how I was explained the system
14 worked.

15 Q. Have you ever tested that or experienced
16 that happening?

17 A. No, sir. The only testing of the
18 standby generator to my knowledge was a manual

19 start just to make sure it would crank and run.

20 Q. When Chief Engineer Bertone was here, he

21 explained to us that when you all went down to

22 the backup generator's location and tried to

23 start it that he switched it from automatic to

24 manual. Do you recall that happening?

25 A. Yes, sir.

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1 Q. Would that be the normal process as far
2 as you understand it to start that generator?

3 A. Yes, sir.

4 Q. And would that be because ten minutes
5 had now elapsed since the shutdown of the main
6 power plant?

7 A. We didn't care about ten minutes. We
8 wanted the generator on line.

9 Q. I understand. Thank you. Thank you,
10 sir. I have no further questions for you at
11 this point.

12 EXAMINATION

13 BY MR. DYKES:

14 Q. Mr. Williams, you recently stated just a
15 few moments ago the outboard air intakes on the
16 port and starboard sides covered all three
17 engines rooms on each side?

18 A. Yes, sir.

19 Q. We have received testimony earlier in I
20 believe the second hearing that there are two
21 air intakes located under the riser skate that
22 feed into Engine Rooms 3 and 4. Are you
23 familiar with those two?

24 A. Yes, I am.

25 Q. Is --

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1 A. Those also have gas detectors. I had
2 forgotten about those. Yes, they are directly
3 under the riser skate.

4 Q. What do those vents feed?

5 A. They are also feeding into the engine
6 spaces.

7 Q. As well, so you have two inboard and two
8 outboard on each side?

9 A. Yes, sir.

10 Q. Okay. All right. Thank you.

11 E X A M I N A T I O N

12 BY MR. MATHEWS:

13 Q. I had one follow-up question too about
14 the inhibited status of the alarms. Was there
15 any other backup system that would -- that the
16 DEEPWATER HORIZON had in place in lieu of that
17 system to notify those people that there was
18 high high gas alarms going off in those areas?

19 A. The PA system would be the only other

20 means of communication.

21 Q. Was anyone monitoring those alarms from

22 the bridge or --

23 A. There were personnel on the bridge, yes.

24 Q. Then the people on the bridge would

25 then -- If they saw a high high alarm would then

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1 over the PA notify the people in those zones or
2 compartments that there was a high high gas
3 situation?

4 A. That was their plan, yes.

5 Q. Okay.

6 A. They were going to be the ones to
7 interpret what those gas alarms did and make the
8 determination themselves to sound the alarm or
9 not. That's the way it was explained to me and
10 why -- as to why it was inhibited.

11 Q. And who were those people? Was it --
12 What position did they hold?

13 A. DPO, Senior DPO.

14 Q. Thanks a lot, sir.

15 A. Uh-huh.

16 E X A M I N A T I O N

17 B Y C A P T N G U Y E N :

18 Q. Mr. Williams, in terms of you indicated

19 that there were some alarms that were bypassed;

20 is that correct?

21 A. Yes, sir.

22 Q. Did the vessel have a bypass log that

23 was maintained?

24 A. Not to my knowledge.

25 Q. So who tracked -- Who tracked these

ASSOCIATED COURT REPORTERS

1 bypasses?

2 A. The inhibited alarm?

3 Q. Yes.

4 A. It was inhibited. To my knowledge, no

5 one tracked it.

6 Q. Okay. So if there was other safety

7 devices that was bypassed on the DEEPWATER

8 HORIZON, to your knowledge, there's no procedure

9 in terms of documenting them and approving them

10 and, you know, closing them out?

11 A. There was for individual sensors, the

12 individual detectors.

13 Q. But there is no one bypass log that is

14 maintained to track all the items?

15 A. There was a log for individual detectors

16 and sensors, a handwritten log. As they would

17 get an erroneous reading or a fault condition

18 that would display on SIMRAD, they would write

19 in the log book and they would call me so that I

20 could put it on my list.

21 Q. Okay. Now --

22 A. As far as the general alarm, no log that

23 I'm aware of.

24 Q. So if you -- If you think -- Do you

25 think that the Master of the vessel or the OIM

ASSOCIATED COURT REPORTERS

1 should know about these bypasses?

2 A. Yes, sir.

3 Q. Should they approve these bypasses

4 before they bypass?

5 MR. GORDON:

6 I'm sorry, Captain. Are you asking

7 him did the captain know?

8 CAPT NGUYEN:

9 No. Should they know.

10 MR. SCHONEKAS:

11 I'm going to object.

12 MR. BICKFORD:

13 Captain, I'm going to object to the

14 competency of this witness to offer that

15 kind of opinion.

16 CAPT NGUYEN:

17 I'm just wondering if it's standard

18 procedure to spell out how these bypasses

19 were documented and tracked.

20 MR. BICKFORD:

21 Yes. And, Captain, just so that
22 we're clear on terminology, that's not the
23 terminology -- He's not using the word
24 bypass. It's inhibited. Okay. I just want
25 to make sure that we're all on the same

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1 terminology.

2 CAPT NGUYEN:

3 I understand, but it's just general
4 comments I use for when -- you know, when a
5 safety device or alarm is not in the proper
6 condition that some action is taken. You know,
7 bypass or inhibited or whatever it is.

8 MR. BICKFORD:

9 I'm just concerned that there are two
10 different modes. One being bypass and one being
11 inhibited, and we're talking about an inhibited
12 alarm --

13 CAPT NGUYEN:

14 I understand.

15 MR. BICKFORD:

16 -- condition at this point. And
17 your question is whether the OIM or the
18 vessel master should know about this

19 condition?

20 CAPT NGUYEN:

21 Yes.

22 BY CAPT NGUYEN:

23 Q. Is there a system in place to track all
24 these, you know, discrepancies, and how are they
25 followed up and closed out, if there is one that

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1 you know.

2 A. When I started in the ET shop officially
3 in April 2009, the fire and gas system was a
4 wreck. There were several detectors that were
5 faulted, overridden, and completely ignored out
6 of the system due to lack of maintenance.

7 I took it upon myself, and my
8 assistant, Stenson Roark, to rectify that, and
9 we got the fire and gas system back up to
10 snuff, and I made it a point every hitch, when I
11 got out there the first day, the first thing I
12 did was go to the SIMRAD station and go to the
13 fire and gas page and see how many detectors
14 were inhibited, how many sensors were inhibited,
15 how many were overridden, how many were faulted,
16 because that was my primary concern when I got
17 to the rig is my own safety.

18 During the audit of -- the BP audit, I

19 guess it was August of '09, they
20 discovered how terrible the fire and gas
21 system was, and it was brought up in their
22 audit. It was actually noted.
23 Throughout that or prior -- During
24 that time period, there was no tracking of
25 the fire and gas system, to my knowledge.

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1 There was some -- One DPO done it this way.
2 The other one done it another way. There
3 was no standard procedure for tracking fire
4 and gas.

5 After the audit came the log book,
6 and it was at that point that I made Chief
7 ET. We had this actual physical log that
8 the Senior DPO was the only one to write in
9 it. He or she would write in it when the
10 alarm faulted, what's on, what location,
11 everything, and then when it was repaired
12 and who it was repaired by and the date, so
13 that we could not let fire and gas get in
14 the condition it was when I started.

15 Does that answer your question?

16 Q. It paints a picture to help fill in a
17 picture for me. Now, you indicated -- You
18 mentioned I believe the BP maritime assurance

19 audit; is that right?

20 A. Correct.

21 Q. Did you participate in that audit?

22 A. No, sir, I did not participate.

23 Q. Have you ever participated in any

24 external audit inspections or surveys?

25 A. One.

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1 Q. Which one is that?

2 A. ABS.

3 Q. ABS. And would you elaborate on that?

4 A. ABS representative came out, and my
5 entire function with him was fire and gas. He
6 allowed me to pick which smoke detectors I
7 wanted to put smoke to, which toxic and which
8 combustible. He also insured that we tested all
9 six of the infrareds that were located in the
10 engine spaces. We did test each one of those,
11 and it wasn't a pick and choose. We tested them
12 all, all the engines.

13 He was satisfied with the results of the
14 tests. All the detectors functioned normally
15 and responded on time, and that concluded my
16 external testing assistance.

17 Q. Okay. Do you know whether -- Do you
18 know whether that was for a class survey or was

19 it relating to a --

20 A. I don't know.

21 Q. You don't know.

22 A. I just done what I was told.

23 Q. Right. But the first part of your

24 answer was something about he allowed you to

25 pick and choose which one to test?

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1 A. Yes, he did.

2 Q. Okay.

3 A. He told me to pick -- I recall six, I
4 think, smoke detectors and he gave me general
5 areas of where to pick them. One from the
6 accommodation, one from a machinery space, one
7 from an office space, those sort of things, and
8 he let me pick the numbers.

9 Q. Okay.

10 A. And he stood by on the bridge while I
11 went and shot smoke to it to make sure he would
12 get the indication and get the alarm.

13 Q. All right. If the ABS surveyor was
14 conducting that activity on behalf of the flag
15 state, do you think it's appropriate for him to
16 allow you to pick and choose?

17 A. I thought it was kind of strange for him
18 to allow me to pick the ones I wanted. That

19 sure made it easier on me, because I can pick

20 the easiest ones to get to.

21 Q. All right. Now, you indicated that

22 during the event when you was up on the bridge

23 and either you or Mr. Bertone were asking the

24 captain, Captain Kuchta, about starting the

25 standby generator, and he was asking you what

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1 about the generator?

2 A. No one asked me anything about the
3 generator.

4 Q. But did he say if you -- What does the
5 standby generator do, right? Is that correct?
6 What is it going to power? To power what?

7 A. The captain inquired about would it give
8 us fire pumps, a way to fight fire, and
9 lighting.

10 Q. Should he have known that before hand?

11 MR. KOHNKE:

12 Captain, what -- There's a couple
13 of cab drivers out there we can ask the same
14 question to and it will have just as much
15 relevance. Why are you asking a chief
16 electrician what the captain should and
17 should not know?

18 CAPT NGUYEN:

19 I appreciate that, sir.

20 MR. KOHNKE:

21 Well, I would appreciate it if you

22 stick to something that this man can answer.

23 He can't judge the captain.

24 MR. GORDON:

25 Comparing the captain of this

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1 vessel to the cab drivers outside may be

2 appropriate; however, this is a --

3 MR. SCHONEKAS:

4 There's no reason for that.

5 There's no reason for that.

6 CAPT NGUYEN:

7 Your objection is noted. Please

8 sit down, please.

9 BY CAPT NGUYEN:

10 Q. Now, let's back up a little bit. Who is

11 responsible for the safety of the vessel and the

12 personnel aboard the vessel, as you understand

13 it?

14 A. It depends on whether we're latched up

15 or under way.

16 Q. All right. Now, let's say -- Okay.

17 When you're under way, who's responsible for the

18 vessel and the personnel on board the vessel?

19 A. The master.

20 Q. All right. Should the master of the

21 vessel know what the standby generator is

22 capable of supplying?

23 MR. SCHONEKAS:

24 Same objection.

25 UNKNOWN SPEAKER:

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1 Same objection.

2 THE WITNESS:

3 I don't know.

4 BY CAPT NGUYEN:

5 Q. All right.

6 A. I've not looked at his job --

7 Q. But that was his question to you?

8 A. It wasn't to me. It was something I

9 heard him ask out loud. It wasn't directed at

10 me.

11 Q. All right. Got you. A lot of the

12 testimony that we have received relating to the

13 proper maintenance of the vessel, how long have

14 you been out as a mariner? How long have you

15 served at sea? Besides the Marine Corps. I

16 know you were on board the NAVAL PRESCOTT.

17 A. Just the three years with Transocean.

18 Q. Transocean. Are you familiar with the

19 International Safety Management Code?

20 A. No, sir.

21 Q. Okay. Now, can you describe to me how

22 long were you serving on the DEEPWATER HORIZON?

23 A. Just shy of two years.

24 Q. Two years. Okay. Did it have a safety

25 management system aboard the vessel?

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1 A. We had the HS policy, HS manual.

2 Q. HS manual. What is -- Can you describe
3 to me what you know about HS manual. Is that
4 the Health and Safety?

5 A. Yes, sir. Health, Safety and -- It used
6 to be H, S and E manual, Health, Safety and
7 Environmental, and then they changed it to the H
8 and S manual.

9 Q. Okay.

10 A. That was our Bible. That's what we --
11 That laid out what we could and could not do.

12 Q. What's in it?

13 A. A little bit of everything. I mean it's
14 a very thick document. It's several hundred
15 pages.

16 Q. Several hundred pages. Does it describe
17 the relationship between who's in charge under
18 what condition, their responsibilities, their

19 role in that manual?

20 A. I never read that page.

21 Q. Okay.

22 A. If it's in there.

23 Q. Any -- Any references on the vessel that

24 relate to who's in charge when?

25 A. Not to my knowledge.

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1 Q. Okay. How about in the HS manual is it
2 described how the equipment discrepancies get
3 documented, tracked, and resolved?

4 A. Could you rephrase the question?

5 Q. Right. In the HS manual, your Bible,
6 does it describe how, you know, discrepancies,
7 you know, as equipment failure get documented,
8 tracked, resolved?

9 A. Not to my knowledge.

10 Q. Okay. How about equipment maintenance,
11 schedules, and --

12 A. No, that's not in there.

13 Q. Okay. Because a lot of -- so any
14 guidance aboard the vessel with regard to -- You
15 know, a lot of these maintenance issues,
16 equipment discrepancies, a lot of people cite
17 the reason as parts on order, and I just want to
18 know how -- I mean looking at the BP Maritime

19 Assurance article over here, a lot of items
20 didn't get carried through, you know, didn't get
21 completed in the period of time, and I was just
22 wondering whether there's a system that really,
23 you know, will document and track and follow
24 through on some of these items. So to your
25 knowledge, there is not aboard the vessel?

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1 A. The RMS system --

2 Q. Oh, the RMS system.

3 A. -- was the forum that I used to track my
4 work load, and to document what I've done to any
5 system that I worked on.

6 Q. So that's the Rig Maintenance System?

7 A. Yes, sir.

8 Q. So Mr. Bertone testified to the Rig
9 Maintenance System. Now, so you have the HS
10 manual that you used and the Rig Maintenance
11 System that you used in your work; is that
12 right?

13 A. Yes, sir.

14 Q. But as far as you know, in terms of the
15 safety management system aboard the vessel, you
16 are not familiar with that, you know if it
17 existed?

18 A. Not a stand-alone document, no.

19 Q. Now, the rig management system, Mr.
20 Bertone testified when it was deployed aboard a
21 vessel there was not a perfect fit. Is that
22 your experience also?

23 A. Yes. It was overwhelming.

24 Q. Okay. It didn't match up with some of
25 the systems aboard the vessel; is that correct?

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1 A. A lot of the equipment that they wanted
2 us to do maintenance on we didn't have. Some of
3 the equipment we did have that needed
4 maintenance wasn't included. There was a lot of
5 redundancy from the impact system, which was the
6 previous maintenance system. When they did the
7 merger, they imported all the data from the
8 impact system and the corporate level PMs a lot
9 of times would about identical to the ones we
10 had that came over from impact, so we would have
11 sometimes four jobs for -- four different
12 listings for the same job. So there was a lot
13 of that that we were still working through.

14 I personally put in probably a hundred
15 change requests over the previous three or four
16 months to eliminate some of our work load that
17 was redundant or did not apply.

18 Q. Okay. So you've got this rig management

19 system that was deployed on the vessel that was
20 not a perfect fit. I understand from your
21 testimony this morning -- I understand your
22 testimony this morning about the A-chair about
23 the software --

24 A. Yes.

25 Q. -- that also had problems.

ASSOCIATED COURT REPORTERS

1 A. Yes.

2 Q. Okay.

3 A. Those are not related though.

4 Q. I understand. I'm just trying to --

5 A. To get an overall picture of the --

6 Q. To get an overall picture of how --

7 A. The chairs themselves were completely
8 independent and isolated from the entire rig
9 network, so there was no chance of infection,
10 virus, hacking, there was no opportunity for
11 that.

12 Q. Okay. And there's no -- There's no
13 system to track some of these -- I don't know --
14 bypasses or normal conditions of a system. Do
15 you think some of these things, these examples,
16 resulted in the condition you found with regard
17 to the condition of the gas and fire system when
18 you took over, or do you think there's other

19 reasons why the condition that you found, poor

20 condition that you found --

21 A. I think it was a combination of reasons.

22 Q. Okay.

23 EXAMINATION

24 BY MR. WHEATLEY:

25 Q. Sir, I just have a couple of questions.

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1 Again, I apologize. I should have addressed
2 this earlier. You indicated you were familiar
3 with the fire damper systems, and in particular
4 concerning the engine rooms; is that correct?

5 A. Yes, sir.

6 Q. If I ask you to go up to the diagram we
7 previously displayed, would you be able to
8 indicate the location of those fire dampers?

9 A. Yes, I would.

10 Q. Sir, I'm going to give you a green
11 marker this time and have you go up there and
12 just basically circle the location of those
13 dampers for me, please.

14 A. (Witness complies).

15 Q. Thank you. You can sit down.

16 EXAMINATION

17 BY LT BUTTS:

18 Q. I just have a couple of questions real

19 quick.

20 LT BUTTS:

21 Are there any on the turbos, the

22 intakes to the engines, main diesel engines,

23 fire dampers?

24 A. Yes, there are, but there is no --

25 CAPT NGUYEN:

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1 Can you speak into the mike,
2 please. Speak into the mike.

3 THE WITNESS:

4 There are across the back deck, but
5 there's no fire and gas, and in relation to fire
6 and gas, there are no detectors back there that
7 I'm aware of.

8 E X A M I N A T I O N

9 BY MR. WHEATLEY:

10 Q. In the course of your responsibilities
11 with respect to maintenance, did you have any
12 duties with respect to maintaining the fire
13 dampers?

14 A. Yes.

15 Q. What were those responsibilities?

16 A. Insure that signal given to open or
17 close the damper was received and that the
18 actuator functioned.

19 Q. And how frequently did you test those
20 mechanisms?

21 A. I didn't. The marine department did.

22 Q. So your responsibility essentially was
23 with respect to the sensors and not the actual
24 activation of the system?

25 A. Correct.

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1 Q. Thank you.

2 CAPT NGUYEN:

3 It's been about an hour and a half,
4 so we'll take a short break here until 9:45.

5 (A BRIEF RECESS WAS TAKEN)

6 CAPT NGUYEN:

7 Before we go to the PIIs for asking
8 questions, I respectfully request that all
9 attorneys not engage in these side comments
10 regarding each other. Maybe that's the best I
11 can put it.

12 It doesn't add anything to the
13 investigation, and it's really slowed down the
14 progress of the hearing today. We still have
15 three more -- four more witnesses that we have
16 to complete today, so if you can cooperate, I'd
17 really appreciate it.

18 Flag state?

19 Mr. Williams, you are reminded that you

20 are still under oath, sir.

21 THE WITNESS:

22 Yes, sir.

23 MR. LINSIN:

24 Thank you, Captain.

25 EXAMINATION

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1 BY MR. LINSIN:

2 Q. And good morning, Mr. Williams. My name
3 is Craig Linsin. I represent the Republic of
4 Marshall Islands which was the flag
5 administration for DEEPWATER HORIZON.

6 A. Good morning.

7 Q. Good morning, sir. I have some
8 questions about some of the areas of your
9 testimony, hopefully just to fill in some gaps
10 that would help clarify the situation.

11 Let me direct your attention, sir, to
12 the evening of April 20th. You testified about
13 I believe being in the ET shop about 9:30, and
14 you had heard a gas level announcement over
15 the -- from Sperry Sun. Did I hear you
16 correctly?

17 A. No, sir. My wife heard that.

18 Q. Oh, your wife heard that. All right.

19 Do you recall what the level of that gas alarm

20 was?

21 A. No, sir. I didn't hear it.

22 Q. Oh, you didn't hear it. All right. So

23 you had testified about a gas level of 200, but

24 that was a reference to other gas alarms you had

25 heard at other times that required there be a

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1 shutdown of operations on the floor?

2 A. Correct.

3 Q. Okay. So on the 20th, you do not know

4 what the alarm value was, correct?

5 A. No, sir.

6 Q. You testified that shortly after that

7 you had heard a hissing noise and a thump, and

8 within seconds you began to hear some beeping

9 through the ventilation system, which you

10 believe to be the alarm panels in the ECR;

11 correct?

12 A. Yes, sir.

13 Q. All right. Now, after you heard Engine

14 Number 3 start to rev, how long between that

15 first revving of Engine 3 and the first

16 explosion that you heard, how much time are we

17 talking about overall?

18 A. Ten seconds.

19 Q. And if I understood you correctly, you
20 said that you heard Engine Number 3 rev higher,
21 I believe you said, "than I can even describe,"
22 and then I thought I heard you to say you then
23 heard the revving stop, and shortly after that
24 you heard an explosion. Am I correct in that,
25 sir?

ASSOCIATED COURT REPORTERS

1 A. About simultaneously.

2 Q. All right.

3 A. The explosion stopped the noise, in my
4 opinion. That's what stopped the engine from
5 turning.

6 Q. Okay. So you -- All right. And this
7 was just within seconds of the -- your beginning
8 to hear the engines starting to rev; is that
9 correct?

10 A. Yes, sir.

11 Q. All right. And am I correct that from
12 your location in the ET shop the force of that
13 first explosion you perceived to be from the
14 port side of the vessel; is that correct?

15 A. Yes, sir. I was at the port door to my
16 shop.

17 Q. All right. And if you could give us an
18 estimate, how long was it after that that you

19 perceived the second explosion?

20 A. I couldn't tell you.

21 Q. Would it be fair to say within another

22 few seconds?

23 A. I can't tell you.

24 Q. All right. Can you tell us, sir, or did

25 you have any sense as the -- as to the direction

ASSOCIATED COURT REPORTERS

1 from which the second explosion occurred?

2 A. The only sense I had was the door to the
3 ECR, which faced forward, blew in on me. That's
4 the only direction that I could reference to
5 you.

6 Q. All right. And so where were you
7 physically located when the second explosion
8 occurred?

9 A. I had my hand on the door to -- the
10 forward door of the engine control room.

11 Q. All right. And you were inside the ECR
12 or outside?

13 A. I was in the passageway.

14 Q. All right. You testified, Mr. Williams,
15 about learning, I believe you said about a year
16 ago, that the alarm system for the general
17 muster alarm had been placed in an inhibited
18 mode; is that correct?

19 A. Yes, sir.

20 Q. Tell us, please, how you learned -- how

21 you first learned that?

22 A. In my day-to-day operations at the time

23 we were in an H2S well, and as an MMS directive

24 we had about eight sensors that had to be tested

25 on a daily basis. To conduct that test, I need

ASSOCIATED COURT REPORTERS

1 to inhibit those sensors temporarily, the
2 individual sensor, so that I can go test it with
3 the appropriate amount of gas, check its
4 response time and check its calibration. At the
5 conclusion of the test, I go back and turn the
6 inhibits off so that it's back into a normal
7 state, a ready state.

8 The inhibited state does not prevent the
9 local alarm from sounding. The local panel --
10 alarm's not really the right term -- local panel
11 audible. It's a simple beep on a panel to
12 indicate that there's a condition that's not
13 normal.

14 I would turn the inhibits off. Once the
15 sensors had ample time to settle, which was
16 normally by the time I made it back to the
17 bridge they would have settled down from the gas
18 that I had shot to them and restabilized, and we

19 would verify that their zero settings held and
20 that they did in fact on the log screen log the
21 high and the high high values.

22 It was in one of those -- in that area,
23 that fire and gas section of SIMRAD, that I
24 stumbled across a page which was the general
25 alarm page, and that's where I noticed the

ASSOCIATED COURT REPORTERS

1 general alarm was inhibited.

2 Q. And if I recall your testimony, sir --

3 So this was on a panel in the -- on the bridge

4 that you --

5 A. Yes, sir. One of the -- I want to say

6 there's four OSs that would access that

7 information.

8 Q. And if I recall correctly, you said you

9 had discussed this condition with two crew

10 members who were no longer with Transocean; is

11 that correct?

12 A. Yes, sir.

13 Q. Since that time, since you first learned

14 that these alarms were inhibited, did you

15 discuss that condition with any other crew

16 members on board the vessel?

17 A. Yes, I have.

18 Q. All right. With whom did you discuss

19 it, sir?

20 A. I've discussed it with my assistant,

21 Stenson Roark; the electrical supervisor, Tommy

22 Daniels; and the Senior DPO, Yancy Keplinger.

23 Q. And what did you say to them when you

24 discussed it with them?

25 A. Do you want the words I used?

ASSOCIATED COURT REPORTERS

1 Q. If you can give us a sense of what you
2 said that might be --

3 A. I told them it was unsatisfactory in
4 other terms.

5 Q. And how did they respond when you said
6 that?

7 A. They said they had gotten orders from
8 the OIM and the Master that the alarms were to
9 be inhibited.

10 Q. Each of them responded in that same way?

11 A. Yes, sir.

12 Q. And approximately when did you have
13 these conversations? I'm not looking for a
14 date, but was this within the past six months,
15 within the past three months?

16 A. Yes.

17 Q. Which of those?

18 A. One within the past six, one within the

19 last three days.

20 Q. Okay. Well, let's identify which was

21 which. When did you discuss this with the first

22 individual you mentioned. Was it Roland?

23 First --

24 MR. BICKFORD:

25 Stenson.

ASSOCIATED COURT REPORTERS

1 THE WITNESS:

2 Stenson Roark.

3 BY MR. LINSIN:

4 Q. Okay.

5 A. He and I had this conversation less than
6 a week before the explosion.

7 Q. And Mr. Daniels?

8 A. We had it about two or three days ago.

9 Q. And Yancy Keplinger?

10 A. Within the past six months.

11 Q. Was there anyone else that you discussed
12 this with?

13 MR. BICKFORD:

14 Ever?

15 MR. LINSIN:

16 Well, other than counsel. I'm not
17 discussing --

18 MR. BICKFORD:

19 I'm just trying to get a time

20 frame.

21 MR. LINSIN:

22 Well, within -- He said he

23 discovered this about a year ago.

24 BY MR. LINSIN:

25 Q. And what I'm trying to get a sense of is

ASSOCIATED COURT REPORTERS

1 whether there were people on the vessel that you
2 expressed your concern about this inhibited
3 condition to?

4 A. Yes. There was one more.

5 Q. Who was that?

6 A. Tom Fields, electrical supervisor, who
7 is no longer employed by Transocean.

8 Q. All right. Now --

9 A. He was who I initially went to.

10 Q. Okay. Did any of the people with whom
11 you discussed this give you any indication as to
12 why it had been ordered that this system be
13 placed in inhibited status?

14 A. To keep from waking people up at 3:00
15 o'clock in the morning for erroneous alarms.

16 Q. Had you ever experienced that problem in
17 the time you were on the rig, the alarms going
18 off erroneously and awakening people at night?

19 A. They couldn't. They were inhibited.

20 Q. So they had been inhibited from the time

21 you had been on the ship; is that correct?

22 A. To my knowledge, they were inhibited

23 since I've been an ET aboard that vessel.

24 Q. All right. You testified, sir, about

25 your participation in an ABS audit and your

ASSOCIATED COURT REPORTERS

1 testing of certain functions for the fire and
2 gas system --

3 A. Yes, sir.

4 Q. -- you recall that, sir. Do you recall
5 approximately when that ABS audit occurred?

6 A. Seems like it was around the first of
7 the year.

8 Q. First of 2010?

9 A. Yes, sir.

10 Q. And to the best of your recollection,
11 did you participate in any other audits or
12 inspections of the vessel --

13 A. No, sir.

14 Q. -- with any other class, societies, DMV,
15 or with representatives from MMS or from the
16 Coast Guard?

17 A. No, sir.

18 MR. LINSIN:

19 I have nothing further, Captain.

20 Thank you very much.

21 CAPT NGUYEN:

22 Thank you, sir.

23 E X A M I N A T I O N

24 BY MR. DYKES:

25 Q. Mr. Williams, backing up to the Sperry

ASSOCIATED COURT REPORTERS

1 Sun gas announcement, is that an automated
2 announcement or is that an individual calling
3 out gas units over the intercom?

4 A. It's an individual.

5 Q. Thank you.

6 CAPT NGUYEN:

7 Jimmy Harrell.

8 MR. FANNING:

9 Did you skip the captain, or is it
10 my turn?

11 CAPT NGUYEN:

12 No, It's your turn, sir.

13 E X A M I N A T I O N

14 BY MR. FANNING:

15 Q. Good morning, Mr. Williams.

16 A. Good morning.

17 Q. My name is Pat Fanning. I represent
18 Jimmy Harrell. You know Jimmy, don't you?

19 A. Yes, sir, I do.

20 Q. Okay. And you call him Mr. Jimmy --

21 A. Yes, sir.

22 Q. -- on the rig. These inhibited alarm

23 systems that you've been referring to, did you

24 ever talk to Mr. Jimmy about this?

25 A. No, sir, I did not.

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1 Q. And when you said in your testimony that
2 you reported to the OIM, that the systems were
3 inhibited, the OIM you were referring to wasn't
4 Mr. Jimmy, wasn't it?

5 A. No, sir, it was not.

6 Q. Thank you. That's all the questions I
7 have.

8 CAPT NGUYEN:

9 Thank you, sir.

10 Stephen Bertone?

11 MR. LONDON:

12 I have no questions.

13 CAPT NGUYEN:

14 Thank you, sir.

15 Patrick O'Bryan.

16 (NO RESPONSE)

17 CAPT NGUYEN:

18 Robert Kaluza.

19 (NO RESPONSE)

20 CAPT NGUYEN:

21 BP.

22 MR. GODFREY:

23 Thank you, Captain.

24 E X A M I N A T I O N

25 BY MR. GODFREY:

ASSOCIATED COURT REPORTERS

1 Q. Morning, Mr. Williams.

2 A. Morning, sir.

3 Q. My name is Rick Godfrey representing BP.

4 I'd like to start with a little bit better

5 understanding of what your job duties and

6 responsibilities were if I could. Is that all

7 right?

8 A. Sure.

9 Q. So let's start with electronic

10 equipment. Were you responsible for inspecting

11 the electronic equipment on board the DEEPWATER

12 HORIZON?

13 A. You'd have to be more specific.

14 Q. Okay. What were your responsibilities

15 with respect to electronic equipment on board

16 the DEEPWATER HORIZON?

17 MR. BICKFORD:

18 Counsel, that's a pretty broad

19 area, everything from the toaster oven to the

20 alarm system. Can you be a little bit more

21 specific?

22 BY MR. GODFREY:

23 Q. Why don't you tell me in your own words

24 what your job duties and responsibilities were,

25 Mr. Williams.

ASSOCIATED COURT REPORTERS

1 A. To investigate, troubleshoot, and repair
2 any sensor or signal going to or from safety
3 systems, drilling systems, propulsion systems,
4 cooling systems. I worked everywhere from the
5 bottom to the top.

6 Q. Okay. Now, when you said to
7 investigate, did you personally conduct the
8 investigations of the various systems you just
9 identified or did someone else do that
10 investigation for you?

11 A. I have been involved in one informal
12 investigation.

13 Q. Okay. Which one was that, sir?

14 A. The inadvertent input to the drillers'
15 Chair A stick.

16 Q. Is that relating to the BOP or is that
17 something else?

18 A. That was in relation to the annular

19 rubber coming back in the mud.

20 Q. Okay. We'll get back to that later.

21 MR. BICKFORD:

22 Counsel, when you're saying

23 investigation, if -- are you referring to

24 the instance where Sensor A shorts out and

25 you've got to investigate why that sensor

ASSOCIATED COURT REPORTERS

1 shorts out, or are you talking about the
2 investigation similar to the annular thing
3 that he talked about?

4 MR. GODFREY:

5 I was referring to the witness'
6 testimony where he said he investigated.

7 MR. BICKFORD:

8 Okay.

9 MR. GODFREY:

10 I assume the witness can explain
11 what he meant by that.

12 MR. BICKFORD:

13 (Inaudible).

14 CAPT NGUYEN:

15 Counsel, when you speak, can you
16 speak into the mike?

17 MR. BICKFORD:

18 Yes, sir. I apologize.

19 BY MR. GODFREY:

20 Q. And the reason I'm asking, Mr. Williams,
21 is I don't want to ask you questions about which
22 you don't really have knowledge, so I'm trying
23 to get a sense of what your knowledge base is so
24 I can tailor my questions accordingly. All
25 right. Is that fair?

ASSOCIATED COURT REPORTERS

1 MR. DYKES:

2 Mr. Godfrey, let me ask a question
3 right here that may help to clear up a few
4 things.

5 MR. GODFREY:

6 Thank you, Mr. Dykes.

7 EXAMINATION

8 BY MR. DYKES:

9 Q. When you went to work on the interior
10 following the inadvertent movement of the stick
11 or where there was suspected inadvertent
12 movement of the stick, were you sent there to
13 trouble shoot the problem or were you sent there
14 to conduct an investigation and write a report?

15 A. I was sent there to conduct an informal
16 investigation to find out why the block moved.

17 Q. Okay. Were you going to put together a
18 report?

19 A. No. It was informal.

20 MR. DYKES:

21 Okay. Thank you.

22 THE WITNESS:

23 Okay.

24 E X A M I N A T I O N

25 BY MR. GODFREY:

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1 Q. I think what I'll do is -- perhaps it's
2 easier -- I'll walk through your testimony from
3 start to finish with some questions that I have
4 and maybe you can elaborate. Okay?

5 A. All right.

6 Q. When you heard the engine going over
7 speed, you thought explosion. What engine did
8 you think had exploded on the night of April 20?

9 A. Engine Number 3.

10 Q. Okay. Did any other engine explode as
11 far as you could tell?

12 A. I don't know.

13 Q. All right. You said that -- and we've
14 had certainly a lot of testimony -- that the
15 alarms were Inhibited. If the alarms are
16 inhibited, does that mean they won't work?

17 A. Yes.

18 Q. You said that there were no gas alarm

19 sensors in the engine rooms. Can you explain

20 what you mean by that, sir?

21 A. There are no gas sensors in the engine

22 rooms.

23 Q. So if gas came in through the air intake

24 valves into the engine room, the engine room

25 wouldn't have the sensor to pick up the gas

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1 going into the engine room?

2 A. Correct.

3 Q. And if the engines went into over drive

4 because the gas was being took into the engines,

5 there's nothing to shut the engines off as far

6 as you know?

7 A. The actual sensors are mounted to the

8 air intakes for the engines. There's none in

9 the actual space.

10 Q. All right. Did the air intake sensors

11 go off, do you know?

12 A. I don't know. I wasn't at the panel.

13 Q. All right. Now, you talked about

14 Drilling Chair A and B and C. I want to focus on

15 Drilling Chair A. When were the hard drives

16 replaced?

17 A. During my hitch.

18 Q. What time period approximately, do you

19 recall?

20 A. Week prior.

21 Q. Week prior to the explosion?

22 A. Yes.

23 Q. Okay. And you said you were still

24 trying to get the old system and new system to

25 be in sync, if you will. Is that fair?

ASSOCIATED COURT REPORTERS

1 A. We were waiting on the NAUTILUS.

2 Q. Okay. What does that mean?

3 A. The NAUTILUS was a sister rig that had a
4 very similar drilling package. They had bought
5 the upgraded computers and software and were
6 trying to get it to function properly. We were
7 waiting on them to get the bugs worked out.

8 Q. Was the new hardware and the software
9 for Drilling Chair A, B, and C functioning
10 properly as of April 20, 2010, as far as you
11 knew?

12 A. You're going to have to repeat the
13 question.

14 Q. Sure. As of April 20, 2010, was the new
15 hardware and the software on Drilling Chair A,
16 B, and C functioning properly without any
17 issues?

18 A. They were not installed.

19 Q. They were not installed. All right.

20 Now, you said there was something called the

21 blue screen of death. Is that a phrase you used

22 or was that a phrase of common knowledge within

23 the crew?

24 A. Common knowledge.

25 Q. Okay. And what did the blue screen of

ASSOCIATED COURT REPORTERS

1 death refer to?

2 A. The complete lack of video to the chair.

3 Q. So the driller sitting in the chair has

4 got a screen in front of him. Right?

5 A. He has two screens in front of him.

6 Q. Okay. Fair enough. He's got screens in

7 front of him, and we've heard previously that

8 the problem was, at least in the A-chair, the

9 screens would lock up or freeze. Are you

10 familiar with that?

11 A. Yes.

12 Q. Okay. Did that also happen in the B

13 Chair?

14 A. Occasionally.

15 Q. Okay. And when they froze, was that

16 what you were referring to as the blue screen of

17 death, the driller wasn't getting the necessary

18 information?

19 A. Yes. It would do either/or. Sometimes
20 it would get a blue screen of death, sometimes
21 it would just lock up and no data would change.
22 Q. Well, if the driller is sitting there
23 trying to manage the well, and the blue screen
24 of death shows up, how is the driller supposed
25 to be able to manage the well?

ASSOCIATED COURT REPORTERS

1 A. He's going to have to go to B Chair.

2 Q. And if B Chair isn't functioning

3 properly, what's the driller to do?

4 A. He's got to go to C chair.

5 Q. And if that's not functioning properly?

6 A. Abandon ship.

7 Q. I think I got the picture. Did you

8 ever -- Who did you -- Did you ever complain to

9 anyone about the blue screen of death?

10 A. All the time.

11 Q. Who did you complain to on board the

12 vessel?

13 A. Electrical supervisor.

14 Q. Who was that?

15 A. Stanley Carden and Tommy Daniels.

16 Q. Okay. Did you ever complain to Mr.

17 Harrell?

18 A. He complained to me.

19 Q. Mr. Harrell complained to you about it?

20 A. He wanted them fixed.

21 Q. Okay. So he wanted you to fix them?

22 A. Everybody did.

23 Q. Did you try to fix them?

24 A. Continuously.

25 Q. Okay. Did you ever get them fixed?

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1 This is the three chairs.

2 A. There was no fixing bad software. We
3 could simply manage it, try to keep it running.

4 Q. Okay. Now, you said that -- not on this
5 well, not on the MACONDO 252 but on a prior well
6 prior to the DEEPWATER HORIZON arriving on site
7 at the MACONDO well there had been a problem
8 with the drilling chairs and that led to a kick.

9 Do you recall that testimony?

10 A. Yes, I do.

11 Q. Okay. So first of all, what was the
12 time frame, or what well was that?

13 A. I don't recall.

14 Q. But it was during the time you were on
15 the vessel, right.

16 A. Yes, I was on the vessel.

17 Q. Okay. So we know it was sometime during
18 the last year and a half, is that fair?

19 A. Fair enough.

20 Q. Okay. And what location was the

21 DEEPWATER HORIZON on prior to arriving at

22 MACONDO 252?

23 A. I didn't keep up with all that.

24 Q. Okay. Fair enough. Now, when you said

25 that there was a kick because the screens were

ASSOCIATED COURT REPORTERS

1 down or whatever happened with the A-chairchair,

2 C-chair, what do you mean by that?

3 A. When the chair went down, it was brought

4 back up, and there's a software program that

5 runs inside the other program called a tag

6 replicator. The tag replicator is -- All three

7 chairs are connected via servers, and in order

8 to get that chair back fully functioning, the

9 tag replicator must go to the other two chairs

10 and verify the data it's receiving so that it

11 will display to the driller the correct values

12 for everything on the screen from mud pump

13 pressure to how many strokes a minute to all the

14 different tags. There's several hundred tags

15 that the software is looking at all the time.

16 Upon the reboot of the chair, getting it

17 back up, the tag replicator did not function,

18 and the driller was looking at data that was

19 erroneous.

20 Q. And as a result of the driller looking
21 at data that was erroneous after the screen and
22 the computer returned to its functionality, did
23 a kick happen?

24 A. We took a kick in -- During that process
25 a kick was discovered.

ASSOCIATED COURT REPORTERS

1 Q. Was that because the driller just didn't

2 have the information necessary --

3 A. He didn't have the correct information.

4 Q. And he couldn't manage the well, right?

5 A. Correct.

6 Q. You ever talk to the driller about that?

7 A. I did not.

8 Q. Did you ever talk to any of the drillers

9 or toolpushers or senior toolpusher about this

10 blue screen of death?

11 A. Every day.

12 Q. Okay. What did you -- Who did you talk

13 to specifically, the best you can recall?

14 A. I talked to all the drillers and the

15 toolpushers. I mean it happened all -- all

16 hours of the day or night. It wasn't specific

17 when it would crash. And just whoever happened

18 to be on when it did crash, that's who I had to

19 talk to about it.

20 Q. Did you talk to Mr. Ezell about it?

21 A. Yes.

22 Q. What did he say about the blue screen of

23 death?

24 A. He wanted it fixed.

25 Q. Did you Talk to Mr. Burgess about it,

ASSOCIATED COURT REPORTERS

1 Micah Burgess?

2 A. I don't know that name.

3 Q. Okay. Did you talk to Duey Rivet?

4 A. Yes, I did.

5 Q. What did Mr. Rivet want to do about it?

6 A. He wanted it fixed.

7 Q. Did you talk to Jason Anderson about it?

8 A. Yes.

9 Q. What did Mr. Anderson want to do about
10 it?

11 A. Wanted it fixed.

12 Q. There's been testimony prior to your

13 getting here about there's a policy at

14 Transocean that every employee has an obligation

15 to interrupt the operation or an operation to

16 prevent an incident from occurring, safety --

17 stop safety policy. Are you familiar with that

18 policy?

19 A. Yes, sir.

20 Q. Did you ever ask to stop operations on

21 the rig because of the blue screen of death?

22 A. No, I did not.

23 Q. Okay. Did you ever --

24 A. We had two other chairs.

25 Q. Okay. Did anyone ever ask anyone to

ASSOCIATED COURT REPORTERS

1 stop operations on the rig because of the
2 inhibited alarms?

3 A. Not to my knowledge.

4 Q. You never did that?

5 A. No, I did not.

6 Q. Okay. Let's switch topics and go to the
7 emergency generator. Okay. Now we're on the
8 night of the -- Actually, I won't call it
9 emergency generator. Is it technically a
10 standby generator?

11 A. Correct.

12 Q. First, doesn't the DEEPWATER HORIZON
13 have an emergency generator?

14 A. Yes. It had two.

15 Q. Were they in the engine room?

16 A. Yes, they were.

17 Q. So when Engine 3 blew up, did they
18 become non-operational?

19 A. Engine 3 was one of the emergency

20 generators.

21 Q. Engine 3 was one of the emergency

22 generators?

23 A. It was designated as Emergency Generator

24 Number 3 and Number 4.

25 Q. I apologize. I'm confused. One of the

ASSOCIATED COURT REPORTERS

1 engines that was actually running on the night
2 of the explosion was the emergency generator?

3 A. It was designated as an emergency
4 generator. There's six engines available at any
5 time.

6 Q. Okay. And one of the regular engines is
7 just designated emergency generator, was that
8 the practice on board the vessel?

9 A. Yes.

10 Q. Okay. Thank you. So the standby
11 generator, I think you told us about that. You
12 walked with two other men to try to start the
13 standby generator?

14 A. Correct.

15 Q. Were the lights out at that time when
16 you went to start the standby generator on board
17 the rig?

18 A. Yes.

19 Q. Is the standby generator in a dark room?

20 A. Very dark.

21 Q. Okay. So did you try to read the -- How

22 did you -- What was the light source to try to

23 get the engine started? That is the standby

24 generator. What were you trying to do?

25 A. I had a small pen light in my mouth.

ASSOCIATED COURT REPORTERS

1 Q. Okay. Now, did you read the instruction
2 manual to try to figure out how to start that
3 standby generator that night?

4 A. We read the procedure, starting
5 procedure, that was attached to the panel.

6 Q. Okay. Had anyone ever trained you or
7 anyone else about how to start the standby
8 generator?

9 A. No.

10 Q. Okay. Do you know of anyone being
11 trained on board the DEEPWATER HORIZON as to how
12 to start the standby generator?

13 A. My knowledge was that was engineers'
14 responsibility.

15 Q. Okay. Who would the engineers be?

16 A. Any of the watch engineers.

17 Q. Okay. Do you have some names for them?

18 A. Doug Brown, Brent Mansfield, Jerry

19 Weaver. And there would be at least three
20 others. I can't recall their names off the top
21 of my head.

22 Q. Of course, if the engineers were
23 injured, like Mr. Brown, or otherwise not
24 available because of the fire or something,
25 there was no one else trained to start the

ASSOCIATED COURT REPORTERS

1 standby generator?

2 A. To my knowledge, no.

3 Q. So you were trying to start the

4 generator that you had never seen before?

5 A. I had seen it. I hadn't worked on it.

6 Q. Okay. You mentioned that at some

7 point -- and I want to get a date from you --

8 that a BP well site leader said, "Pump it up."

9 Do you recall that?

10 A. Yes, I do.

11 Q. What was the approximate time frame of

12 that, please?

13 A. I would have to say about the second

14 week on the well.

15 Q. So that was about middle of February,

16 early March?

17 A. It was early in the well.

18 Q. Okay. So that was not in April, right?

19 A. No, sir it was not.

20 Q. It was not in March?

21 A. No, sir. Not to my knowledge, no.

22 Q. So you think it was in February or -- I

23 think it had to be February, right, as far as

24 you can tell?

25 A. As far as I can tell.

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1 Q. Okay. Who is Mark Hay?

2 A. Senior subsea supervisor.

3 Q. Is he a Transocean employee?

4 A. Yes, sir.

5 Q. Okay. And he's the one you had the

6 conversation with about the annular rubber?

7 A. Yes, sir.

8 Q. Did you ever see or know whether or not

9 the BOP was tested after your conversation with

10 Mr. Hay about the annular rubber?

11 A. I don't know.

12 Q. You're aware that the BOP was routinely

13 tested, are you not?

14 A. Yes.

15 Q. You know the last time the BOP was

16 tested?

17 A. No, I don't.

18 Q. You don't participate in those tests?

19 A. No, sir, I don't.

20 Q. Okay. Let's talk about the BOP panel.

21 You recall your testimony earlier?

22 A. Yes, I do.

23 Q. Okay. So you said that the BOP panel

24 was dead or is dead. What did you mean by that?

25 A. When it lost purge, the way the system

ASSOCIATED COURT REPORTERS

1 was set up to run in automatic, if you ever lose
2 purge on the BOP control panel itself, it would
3 power the entire panel down.

4 Q. If the BOP panel was dead could the BOP
5 be operated?

6 A. Say that again.

7 Q. Sure. Maybe I'll rephrase it.

8 MR. WHEATLEY:

9 It's just that we're having trouble
10 hearing you. You speak softly.

11 MR. GODFREY:

12 Oh. I can speak up. Not a
13 problem.

14 BY MR. GODFREY:

15 Q. When the BOP panel was dead, did that
16 mean that the BOP could not be operated?

17 A. No.

18 Q. It didn't mean that, or it did?

19 A. It did not mean that.

20 Q. So what was the significance, if any, of

21 the BOP panel being dead?

22 A. It couldn't be operated from that

23 location.

24 Q. I see. Were there other locations that

25 the BOP panel could be operated from?

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1 A. Yes.

2 Q. Which were those?

3 A. On the bridge.

4 Q. Okay. And the BOP panel being dead, was
5 that in the driller shack?

6 A. Yes, sir.

7 Q. Okay. So that if the driller was
8 sitting in the driller shack and he had a well
9 control situation and wanted to activate the BOP
10 and the panel was dead, he couldn't do anything
11 about it, is that what you're telling us?

12 A. Not at that time he couldn't.

13 Q. Okay. Do you know whether or not the
14 BOP panel went dead again at any point after you
15 intervened to try to fix it?

16 A. I never got another call about it. We
17 put it in -- Mark Hay put it in bypass.

18 Q. When you say Mark Hay put it in bypass,

19 what does putting the BOP panel that had been
20 dead in bypass mean as a practical matter?
21 A. When the panel went dead, it's because
22 it functioned as it was supposed to. There's a
23 key switch located on the bottom of the panel
24 that is an auto or bypass switch. He switched
25 it to bypass. The panel would automatically

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1 power back up and it would not carry the lost
2 purge. It would maintain power continuously.

3 Q. Is that a good maintenance practice to
4 use a bypass when the panel is dead rather than
5 fixing it?

6 A. Not in my opinion.

7 Q. Okay. What was Mark Hay's position on
8 board the DEEPWATER HORIZON?

9 A. Senior subsea supervisor.

10 Q. And do you know who he reported to?

11 A. Not exactly.

12 Q. Okay. Now, you also said that -- and I
13 think one of the members of the Board asked you
14 a little something about this -- you said that
15 the entire fleet was on bypass. Do you recall
16 that?

17 A. Yes, I do.

18 Q. Okay. So when you mean the entire

19 fleet, you mean the entire Transocean fleet of
20 drilling rigs was on bypass with respect to the
21 BOP panel?

22 A. That was his statement to me.

23 Q. That was Mr. Hay's statement to you?

24 A. Yes, sir.

25 Q. How many rigs are there in the entire

ASSOCIATED COURT REPORTERS

1 Transocean fleet?

2 A. I don't know. A lot.

3 Q. A lot of them, right?

4 A. Over a hundred, I would guess.

5 Q. All over the world, right?

6 A. Yes.

7 Q. Okay.

8 A. They may not all have the same purge

9 system, but --

10 Q. Fair enough. You only know what Mr.

11 Hay's told you, right?

12 A. I only know what he said out loud to me.

13 Q. Okay. Let's talk about audits for a

14 little bit. Okay?

15 A. About what?

16 Q. Audits.

17 A. Okay.

18 Q. All right. Did I understand you

19 correctly to say that you were not involved in
20 the MODU audit in April or the spring of this
21 year aboard the DEEPWATER HORIZON?

22 A. No, sir. I was off work.

23 Q. Did you hear about that audit?

24 A. I did.

25 Q. Did you hear about any issues in that

ASSOCIATED COURT REPORTERS

1 audit?

2 A. I did.

3 Q. What issues did you learn about as a
4 result of the MODU audit which took place in the
5 spring of 2010 before the explosion aboard the
6 DEEPWATER HORIZON?

7 A. What I had heard concerning the audit
8 was that we were going to be in the shipyard a
9 lot longer than anticipated because the rig was
10 in very bad condition.

11 Q. And who told you that the rig was in
12 very bad condition after the MODU audit?

13 A. The GPT that relieved me, Patrick Cox.

14 Q. The guy on the other hitch that relieved
15 you?

16 A. The guy -- Not the other hitch, but we
17 rotated towers --

18 Q. Oh, fair enough.

19 A. -- for one week.

20 Q. All right. Did he tell you or give you

21 some examples of why the MODU audit concluded

22 that the rig was in bad condition in the spring

23 of 2010 before the explosion aboard the

24 DEEPWATER HORIZON?

25 A. There was nothing new. It was

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1 everything we already knew.

2 Q. BOP panel dead, alarms inhibited, those
3 kinds of things on it?

4 A. I don't know if those were on it or not.
5 I never seen the results of the audit.

6 Q. Was the MODU audit talking about the
7 blue screen of death?

8 A. I don't know. I never seen the audit.
9 His concerns to me were the PRSs and the
10 Thruster Number 2.

11 Q. I understood Thruster Number 2. I
12 didn't hear what you said, the first thing you
13 said?

14 A. The PRSs, rewiring the completely PRSs.

15 Q. What do the PRSs stand for?

16 A. Pipe racking system.

17 Q. Okay. We discussed that earlier. I
18 won't go over that again.

19 Did you ever participate personally in a
20 Lloyd's audit or survey that took place sometime
21 this year aboard the DEEPWATER HORIZON?

22 A. I did.

23 Q. Okay. And when did that survey or audit
24 take place, to the best of your recollection?

25 A. In the winter, maybe December.

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1 Q. Okay. And was that survey conducted in
2 person by someone from Lloyd's, or was that by
3 paper?

4 A. It was in person with two individuals.

5 Q. Okay. And did you interview with
6 someone from Lloyd's?

7 A. Yes, I did.

8 Q. And do you recall the name of the person
9 that you interviewed with from Lloyd's?

10 A. No, sir, I don't.

11 Q. Okay. And what did you tell the Lloyd's
12 audit or survey person that you interviewed with
13 sometime in the winter or December of 2009 or
14 early 2010?

15 A. Told them a lot of things.

16 Q. Okay. It's pretty general. So if you
17 could add some specificity to that perhaps?

18 A. It was a four-hour interview. We talked

19 about a lot of things.

20 Q. Okay.

21 A. I guess the highlight was the safety

22 culture on the rig with the amount of paperwork

23 that we were commanded to do. We let them know

24 that to us it didn't appear helpful, all the

25 new -- We were having multiple layers of

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1 paperwork that we were starting to feel more
2 like secretaries versus, you know, maintenance
3 men.

4 Q. I understand the feeling sometimes.
5 What specific maintenance issues did you
6 complain about or discuss with the Lloyd's
7 interviewer in December of 2009 or early 2010?

8 A. The PRSs and the chairs.

9 Q. And the chairs, the drilling chairs?

10 A. Yes.

11 Q. Do you recall discussing any other
12 specific maintenance issues with Lloyd's
13 surveyor in December 2009, early 2010 with
14 respect to the DEEPWATER HORIZON rig?

15 A. No.

16 Q. Did you tell the Lloyd's surveyor when
17 you met in December 2009, early 2010 that the
18 DEEPWATER HORIZON was unsafe in your judgment?

19 A. I did not.

20 Q. Did you tell him that you had concerns

21 about your own personal safety?

22 A. I did not.

23 Q. Did you tell him your concerns about the

24 safety of the rig?

25 A. Not the safety of the rig, no.

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1 Q. Is there anything else that you can
2 recall telling us in the four-hour interview
3 that you had with the Lloyd's person from
4 Lloyd's in December 2009 or early 2010 with
5 respect to the DEEPWATER HORIZON?

6 A. There was -- It was a group interview
7 with four of us total.

8 Q. Who were the other three?

9 A. Charles Cochran, chief mechanic; Chad
10 Murray, chief electrician. I can't recall the
11 other person.

12 Q. At any time during the Lloyd's interview
13 in December 2009, early 2010, did you suggest or
14 state to the interviewer that you were reluctant
15 to stop work or reluctant to issue a stop order
16 aboard the DEEPWATER HORIZON as is reflected as
17 your right to do with the DEEPWATER HORIZON
18 Transocean safety policy?

19 A. No, I did not.

20 Q. Okay. Now, I want to talk next about
21 the ABS audit or survey. All right. Did you
22 have any involvement at all other than getting
23 to pick which device to test with the ABS
24 surveyor that you testified to earlier with
25 respect to that survey?

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1 MR. BICKFORD:

2 Any involvement? I mean beyond
3 what he's already explained?

4 MR. GODFREY:

5 Yeah. And I'll be more specific.

6 BY MR. GODFREY:

7 Q. Did you meet with someone from the ABS
8 other than the one time you described to us?

9 A. No, I did not.

10 Q. Did they ask you to fill out a form?

11 A. No, they did not.

12 Q. Did they ask you any questions about the
13 maintenance or the status of equipment on board
14 the DEEPWATER HORIZON?

15 A. Not to me, no.

16 Q. All right. Did you ever see the ABS
17 audit report?

18 A. I did not.

19 Q. Did anyone share the results of the ABS

20 audit report with you?

21 A. Not with me, no.

22 Q. Now, your title was what again?

23 A. Chief electronics technician.

24 Q. Okay. So you're the chief electronics

25 technician on board the DEEPWATER HORIZON

ASSOCIATED COURT REPORTERS

1 vessel, right?

2 A. One of four.

3 Q. Okay. You're one of four. And at some
4 times you're on the hitch alone or with another
5 guy?

6 A. Always with another guy working
7 opposite.

8 Q. All right. First question. Did anyone
9 from Transocean share with any of the four of
10 you, to your knowledge, the results of the ABS
11 audit or survey?

12 A. No. All our stuff passed.

13 Q. Everything ABS tested passed?

14 A. In regards to the electronics
15 technician's area, yes.

16 Q. So did the blue screen of death pass the
17 ABS survey?

18 A. I don't know that that was tested. That

19 was not tested with me.

20 Q. All right. Did the alarms that were

21 inhibited pass the ABS survey?

22 A. I don't know that he knew they were

23 inhibited.

24 Q. Did the dead panel for the BOP that was

25 bypassed, did that pass the ABS survey?

ASSOCIATED COURT REPORTERS

1 A. I don't know that he inspected it.

2 Q. Do you know what they inspected, the

3 ABS?

4 A. I know what I inspected.

5 Q. Okay. You know what you inspected.

6 A. I have no idea what they inspected.

7 Q. But we know they didn't inspect -- Well,

8 we don't know that, so I guess I'll move on.

9 DMV audit. You ever involved in DMV audit?

10 A. Don't even know what that is.

11 Q. Did anyone ever tell you about a DMV

12 audit?

13 A. No.

14 Q. I'll come to the BP audit in a minute,

15 but these audits are for the purposes of what,

16 as far as you understood them?

17 A. Create work lists.

18 Q. Create work lists?

19 A. That's -- On my end, that's what they're

20 for.

21 Q. Okay. Were the audits in part to help

22 Transocean identify maintenance or equipment

23 issues that needed attending or fixing?

24 A. We didn't need them identified. We knew

25 what they were.

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1 Q. Okay. You knew what they were?

2 A. Yeah.

3 Q. Now, as of April 20, 2010, prior to the

4 explosion, did you have a list somewhere, a

5 comprehensive list of all the equipment,

6 maintenance items that needed fixing and

7 attention on board the DEEPWATER HORIZON from

8 your perspective?

9 A. From my perspective, yes.

10 Q. Do you still have that list, or is that

11 on the rig floor?

12 A. It would be on the rig floor.

13 Q. Okay. Do you recall how long that list

14 was?

15 A. Several pages.

16 Q. Okay. Single spaced?

17 A. I don't know.

18 Q. I take it more than one item?

19 A. Yes.

20 Q. I take it more than ten items?

21 A. Yes.

22 Q. I take it more than fifty items?

23 A. Maybe.

24 Q. Lots of items is it fair to say?

25 A. Fair enough.

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1 Q. That's both equipment and electrical in
2 nature?

3 A. Yes.

4 Q. Okay. And that's just from your
5 perspective as one of the chief electrical guys,
6 right?

7 A. Correct.

8 Q. Did the engineers have similar lists
9 from their perspective of items that needed to
10 be fixed or have maintenance attended to as of
11 the day before the explosion?

12 A. The list was comprehensive. It included
13 everyone.

14 Q. And was that list put into the RMS
15 system?

16 A. Portions pertaining to my shop, jobs had
17 been added from that list.

18 Q. Okay. And is the RMS system on board

19 the DEEPWATER HORIZON, is that connected into

20 the computer banks of Transocean on shore?

21 A. To my knowledge, yes.

22 Q. Okay. So your list of the items that

23 needed fixing and needed maintenance, would it

24 be correct to assume that those should be

25 maintained in a data base on shore today at

ASSOCIATED COURT REPORTERS

1 Transocean?

2 A. Could you repeat that, please?

3 Q. Sure. The list of items that you had

4 that needed to be fixed and had to have

5 maintenance done, yet to be done, would it be

6 fair to say that your part of the list would

7 still be maintained by Transocean in their

8 computer data banks on shore?

9 A. Yes.

10 Q. Okay. Now, you told us that the ESD was

11 not tested. What did you mean by that?

12 A. I had not personally tested any ESDs

13 except for ESD Number 4.

14 Q. Was that to Engine 4?

15 A. No, sir.

16 Q. What was that for?

17 A. ESD Number 4 controlled the drilling

18 package.

19 Q. I didn't hear you. I'm sorry.

20 A. Controlled the drilling package.

21 Q. Okay. Now, you said also that -- and

22 I'm not sure I understood this, so I apologize.

23 I'd like you to explain it. You said the fire

24 doors were off the hinges? What did you mean

25 about the fire doors? Was there a problem with

ASSOCIATED COURT REPORTERS

1 the fire doors?

2 MR. BICKFORD:

3 Are you referring to the time of

4 the explosion?

5 MR. GODFREY:

6 No. Before that. Before that.

7 BY MR. GODFREY:

8 Q. This was the ESD not tested. I wrote
9 down fire doors off hinges. Did I misunderstand
10 you, sir? If I did, I apologize.

11 A. I'll explain it again.

12 Q. Sure.

13 A. Talking with Tommy Daniels, the
14 electrical supervisor, he had inadvertently
15 tripped an ESD that corresponded to an engine
16 room that was running, an engine was running.
17 The fire dampers closed, and it sucked the fire
18 doors off the hinges to that space because it

19 was looking for more air.

20 Q. What do you mean by sucked the fire

21 doors off the hinges? These are supposed to be

22 water-tight doors, right?

23 A. No, sir. Fire doors.

24 Q. Okay. So what do you mean by sucking

25 the fire doors off the hinges?

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1 A. I don't know how else to say it. The
2 force was so great that it lifted the doors and
3 sucked them off the hinges.

4 Q. So basically --

5 LT BUTTS:

6 Are these the dampers that are in
7 the ventilation system?

8 THE WITNESS:

9 No, sir. The fire doors that we
10 use to travel throughout the rig. Each
11 individual space has either a fire door or
12 water-tight door, depending on location.

13 BY MR. GODFREY:

14 Q. So basically the doors came off the
15 frame is what you're saying?

16 A. Correct.

17 Q. There was that door there, now there's
18 no door there; correct?

19 A. Right. It had to be replaced.

20 Q. You used the phrase that -- I'm not sure

21 I understood. You said a corporate level PM.

22 What's a corporate level PM? Is that corporate

23 level preventive maintenance?

24 A. Yes, sir.

25 Q. When you say corporate level PM, what do

ASSOCIATED COURT REPORTERS

1 you mean, corporate level?

2 A. We had rig level and corporate level

3 PM's.

4 Q. So what's the difference between a rig

5 level PM and a corporate level PM?

6 A. A rig level would be something we as an

7 individual business unit would determine needed

8 to be done on a regular routine basis that maybe

9 Houston didn't realize or know or hadn't

10 developed yet, so we would develop it on our own

11 for a specific piece of equipment or system. A

12 corporate level PM was generated and then was

13 disseminated to all the rigs for a specific

14 system, and they would be based on

15 manufacturer's recommendations as well as

16 Transocean's engineering department, I guess.

17 Q. Did you ever see a corporate level

18 Transocean PM with respect to BOP panels being

19 dead?

20 A. Yes.

21 Q. Did you ever see a corporate level PM

22 with respect to once an ESD is tripped, the fire

23 doors can get sucked off the hinges?

24 A. Inside that PM, to test an ESD, there

25 are always safety precautions. There's a page

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1 that lists safety precautions that should be
2 taken into account, you know, pulling permits,
3 advising people above or around the other spaces
4 of what's going on, and the potential for
5 equipment damage or injury to personnel. The
6 tripping of the ESD that sucked the doors off
7 the hinges was inadvertent. It wasn't a
8 scheduled PM.

9 Q. I suspect not.

10 A. Someone had hit the button.

11 Q. Yeah.

12 A. Or hit a button or something and caused
13 the ESD to go off. ESD Number 4 is the only one
14 I've ever tested personally, and it functioned
15 as advertised.

16 Q. So was there or was there not a
17 corporate level PM with respect to tripping ESDs
18 resulting in fire doors being sucked off the

19 hinges?

20 MR. BICKFORD:

21 Specifically fire doors or was

22 there one without tripping the --

23 MR. GODFREY:

24 ESD I think is the --

25 THE WITNESS:

ASSOCIATED COURT REPORTERS

1 There is an ESD PM, yes.

2 BY MR. GODFREY:

3 Q. Corporate level?

4 A. Corporate level.

5 Q. Okay. Was there a corporate level PM

6 about problems with drilling chairs like the

7 blue screen of death?

8 A. There was a corporate level PM dealing

9 with the drilling package, yes.

10 Q. Was there a corporate level PM dealing

11 with bypassing alarms?

12 A. Not to my knowledge.

13 Q. Was there a corporate level PM dealing

14 with inhibiting alarms?

15 A. Not to my knowledge.

16 Q. Now, in the time you were on board the

17 vessel, I assume the Coast Guard came out,

18 right?

19 A. Yes.

20 Q. Did you ever meet with the Coast Guard?

21 A. I have.

22 Q. Did you ever express any of your

23 concerns that you had with respect to either the

24 blue screen of death or the alarms being

25 inhibited or the BOP panel being dead or any of

ASSOCIATED COURT REPORTERS

1 these other concerns, did you ever express that
2 to any Coast Guard officer?

3 A. No, I did not.

4 Q. Okay. I meant to ask you one
5 question --

6 MR. BICKFORD:

7 Hold on a second.

8 THE WITNESS:

9 Sure.

10 (Discussion off the record between the
11 witness and his counsel)

12 BY MR. GODFREY:

13 Q. Do you know the answer, Mr. Williams?

14 A. Yes.

15 Q. I meant to ask you one question before I
16 go to the BP rig audit. When you were last on
17 site, was the OIM in charge?

18 A. TO my knowledge, yes.

19 Q. Now, you testified that you were aware

20 of the BP rig audit, you recall that?

21 A. BP audit.

22 Q. I think the actual title of it is

23 Assurance Audit in Out-of-Service Period. You

24 recall that?

25 A. Yes, sir.

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1 Q. Did you ever receive a copy?

2 A. No, sir, I did not.

3 Q. Did anyone from Transocean ever sit down

4 with you and say, "We've got some issues that

5 have been identified, and you need to, as the

6 chief electronics guy, look at some of these

7 issues"?

8 A. I had gotten Emails with work lists.

9 Q. With work lists. Let me ask you about a

10 couple of issues to see what you did or what you

11 were told about. I don't know what you were

12 told about it, but I'm to only going to ask you

13 about the ones that deal with electronics. Is

14 that fair?

15 A. Sure.

16 Q. Okay. So at the time in September 2 --

17 and just for the Board and for counsel, this is

18 an exhibit in the record. It's BPHZN -- that

19 looks like IIT, but I don't know. But the real
20 numbers that count are 0008871 is the start of
21 it, and then it goes on to Page 8930. Okay?

22 A. Okay.

23 MR. BICKFORD:

24 What is the document, Counsel?

25 MR. GODFREY:

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1 I'll give you a copy of it if you
2 would like one.

3 MR. BICKFORD:

4 That would be great.

5 MR. GODFREY:

6 And I assume the Board has one.

7 BY MR. GODFREY:

8 Q. If you would turn to Page 3 --

9 MR. BICKFORD:

10 Well, just for the record, you've
11 handed the witness the DEEPWATER HORIZON file
12 regarding Follow-up Marine Audit, Marine
13 Assurance Audit, Out-of-Service Period September
14 2009.

15 MR. GODFREY:

16 Yes.

17 BY MR. GODFREY:

18 Q. Would you turn to Page 3, sir, and we're

- 19 not going to look at the little funny numbers
20 that are put on there for Bates stamp control.
21 We're Looking at the real numbers on the
22 original documents 3 at the bottom of the page.
23 Do you have that?
24 A. Yes, sir.
25 Q. So if you see, it's got these little

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1 arrows and kind of things in the Executive
2 Summary. You see the fourth one from the bottom
3 on Page 3, it says, quote, three out of four
4 electric bilge pumps were tested. All three
5 failed to achieve suction due to defective
6 priming systems, end quote.

7 Now, did anyone at Transocean ever
8 inform you that when BP came out to do a rig
9 audit that they found and informed Transocean
10 that three out of four electric bilge pumps
11 failed to achieve suction? Were you informed
12 about that?

13 A. Oh, no.

14 Q. You were never informed about it?

15 A. No.

16 Q. So I gather, not being informed, you
17 weren't asked to do anything about it. Right?

18 A. No. That's not my area.

19 Q. Okay. Let's look at the last bullet
20 point or last arrow on Page 3. It says, quote,
21 just one of A/C water cooling pumps was totally
22 defect free. Two of the defective pumps were
23 identified during the previous audit,
24 parenthesis, January 2008, end parenthesis.
25 While some of the defective pumps could be

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1 operated, four pumps were deemed
2 non-operational, end quote. Were you ever
3 informed of that and asked to do anything about
4 that issue with the A/C water cooling pumps?

5 A. No.

6 CAPT NGUYEN:

7 MR. Godfrey, is it possible for you
8 just to ask Mr. Williams which of those items he
9 was responsible for and he can comment on those?

10 MR. GODFREY:

11 Yes. I tried to pick ones that I
12 thought --

13 CAPT NGUYEN:

14 He said electronics, maybe some
15 are electrical. That may make a difference
16 there.

17 MR. GODFREY:

18 Yeah. I'll have to -- I'll look

19 as I go along. I've only got -- I identified
20 those I thought were electronic, but
21 obviously -- I have one more question about the
22 cooling pump.

23 Are we on the record?

24 THE COURT REPORTER:

25 Yes.

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1 MR. GODFREY:

2 Oh, good. Okay.

3 BY MR. GODFREY:

4 Q. Did the cooling pumps not have anything

5 to do with electronics?

6 A. No.

7 Q. Okay. That will help me then perhaps.

8 Let's try 14 then. Go to Page 14. If you look

9 under the heading, sir, look under the heading

10 Power Plant, second to last paragraph on Page

11 14. 2009 rig audit. You see that?

12 A. I do.

13 Q. It says, quote, control of alarms and

14 defeats and bypasses were not well managed. In

15 fact, no single person could account for which

16 alarms, et cetera were overridden or indeed for

17 what reason, end quote. Now, is that something

18 that you were aware of?

19 A. Yes.

20 Q. Okay. And what steps did you take after

21 September 2009 to try to rectify that, at least

22 in your area?

23 A. What?

24 MR. BICKFORD:

25 The question assumes that he was

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1 supposed to take the responsibility of that
2 versus his awareness of it. I just wanted
3 to make sure --

4 MR. GODFREY:

5 I'll break it up.

6 MR. BICKFORD:

7 Okay. Thank you.

8 MR. GODFREY:

9 I appreciate that. Thank you very
10 much.

11 BY MR. GODFREY:

12 Q. Were you asked to do anything with
13 respect to the finding on the BP rig audit with
14 respect to control alarms and defects and
15 bypasses after the audit?

16 A. Yes, I was.

17 Q. Okay. And was that just in your area of
18 responsibility or was that rig wide?

19 A. Other people had responsibility as well.

20 Q. Okay. What did you personally do to

21 take care of that issue that was pointed out in

22 the rig audit?

23 A. I started indicating in the log book

24 what alarms were inhibited, which alarms I had

25 repaired.

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1 Q. And was that for the entire rig or just
2 certain alarms?

3 A. All alarms.

4 Q. And had you completed that by the time
5 of the explosion?

6 A. Yes.

7 Q. Did someone -- I'm not sure of the
8 words -- uninhibit the alarms or put them back
9 in their uninhibited state?

10 MR. BICKFORD:

11 At what time period?

12 MR. GODFREY:

13 At any time after he discovered
14 this or learned about it.

15 THE WITNESS:

16 Detectors fail, sensors go out of
17 calibration, they get inhibited, they get
18 repaired, they get taken back out, so it's kind

19 of --

20 MR. MATHEWS:

21 Just so the record will be clear,

22 did you say that they were taken out of

23 inhibited through your work or were you just

24 identifying those that were inhibited?

25 THE WITNESS:

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1 My work was to review the log,
2 discover which ones were faulted, and go and
3 troubleshoot to repair the system to get it
4 back to where they would function normally,
5 report that back to the Senior DPO so that
6 they could then sign off in the log book
7 that that particular sensor or detector had
8 been repaired and was back in service so that we
9 had a way to track the fire and gas
10 system, individual alarms, individual -- not
11 alarms -- individual detectors and sensors.

12 BY MR. GODFREY:

13 Q. How many alarm systems were still
14 inhibited as of April 20, 2010, aboard the
15 vessel, DEEPWATER HORIZON?

16 A. I don't know.

17 Q. Were there some?

18 A. I don't know.

19 Q. All right. Turn to Page 25, please.

20 This is a chart of items like a punch list.

21 Look at the top. See the very first one that

22 says ESD fault. You see that?

23 A. Yes.

24 Q. Is that something that you would know

25 about when it says ESD fault was registered on

ASSOCIATED COURT REPORTERS

1 the fire and gas panel located on the bridge?

2 A. Yes.

3 Q. Okay. So did anyone tell you that as of

4 September 2009 that BP had reported to

5 Transocean that, quote, an ESD fault was

6 registered on the fire and gas panel located on

7 the bridge. Further investigation revealed that

8 the heliport system had been inhibited, thereby

9 preventing operation during helicopter

10 operations. This inhibit had been missed from

11 system tests the previous day, end quote. Did

12 someone tell you that at the time?

13 A. I don't recall.

14 Q. Do you know whether anyone fixed that at

15 the time?

16 A. The last time I looked at the system, it

17 was not faulted.

18 Q. All right. Turn to the next page, 26.

19 Again, I think may be an area you're interested

20 in, or were aware of, I should say. Look at the

21 last item. Do you see it, 2.1.18?

22 A. Yes.

23 Q. It says, quote, one of the hospital

24 alarms was tested. Although a signal was

25 activated on the bridge, there was no

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1 acknowledgement to the medic that it had been
2 received, end quote. Is that a system that you
3 were asked to look at after this BP audit?

4 A. No.

5 Q. Did you know about that before I just
6 asked about it?

7 A. No.

8 Q. All right. Take a look at Page 30,
9 please. It's about 25 items later on the list.
10 The very last one, which is 2.2.19, do you see
11 that, sir?

12 A. Yes.

13 Q. All right. It says, quote, the
14 calibration of critical analogic and digital
15 drilling instrumentation, such as the
16 dead-weight indicator, well control pressure
17 gauges, top drive and iron roughneck torque
18 could not be demonstrated, end quote. Were you

19 made aware of and asked to do anything about

20 that after the BP September 2009 audit?

21 A. Yes.

22 Q. And what were you told about this

23 finding that BP had in this rig assurance audit?

24 A. I was given a job based out of that to

25 replace a sensor on the iron roughneck.

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1 Q. Okay. What were you asked to do with
2 respect to calibration of critical analogic and
3 digital drilling instrumentation, such as the
4 dead-weight indicator, well control related
5 pressure gauges?

6 A. Well control related pressure gauges is
7 several gauges. I mean you would have to be
8 more specific.

9 Q. Do you recall being asked to do anything
10 with respect to critical analogic and digital
11 drilling instrumentation?

12 A. Not based on this audit, no.

13 Q. Okay. Let's turn to Page 40, please.

14 Do you have it, sir?

15 A. Yes.

16 Q. Take a look at the last one. This is in
17 Section 3.35. It's about another number later.
18 It says, quote, the driller's cabin fire and gas

19 panel had numerous alarm conditions displayed.

20 Those included fire alarm active, fault ESD

21 active, fault fire and gas active, and fire and

22 gas override active. The driller and assistant

23 driller on tour were unaware of the fault

24 conditions, end quote. Did anyone make you

25 aware of these panels in the driller's shack and

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1 ask you to do anything about it after the 2009

2 rig audit by BP?

3 A. Yes.

4 Q. Who asked you to do what, sir?

5 A. I was asked to reset the fire and gas

6 system to clear the fault.

7 Q. And did you do that?

8 A. Yes.

9 Q. Did you determine why it was that the

10 driller and assistant driller were unaware?

11 What was it that made them unable to be aware of

12 the fault systems?

13 A. I have no idea.

14 Q. Okay. Did you ever -- After you fixed

15 it, did you ever test it again to see whether

16 the same problem reappeared?

17 A. What problem?

18 Q. The problem that the driller and the

19 assistant driller are in the driller shack where
20 they've got an override on the fire and gas
21 systems.

22 A. What you're getting in the driller's
23 cabin is an indication of the overall system.
24 The driller or assistant driller cannot function
25 anything on that panel. They don't have the

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1 authority. Only myself, GPTs and DPOs, Senior
2 DPOs would have that.

3 Q. What I'm getting at is I understand that
4 the driller and assistant driller can't function
5 anything on the panel, but they do rely upon the
6 panel, you would agree, right?

7 A. Agree with what now?

8 Q. I understand that the driller and
9 assistant driller cannot function those things
10 on the panel, but they rely upon the panel, they
11 rely upon what's on the screens in the panel in
12 the drilling shack, right?

13 A. Yes. They can see them all.

14 Q. So they've got to rely upon other people
15 to make sure that the panel and the faults and
16 the alarms are not inhibited and are activated,
17 right?

18 A. Correct.

19 Q. And after you fixed the audit item that
20 BP pointed out in December 2009, did you ever
21 have a routine test to make certain that what
22 the driller and assistant driller were seeing in
23 the drilling shack was working? That the panels
24 were working?
25 A. Yes, the panels were working.

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1 Q. Okay.

2 A. They were simply indicating the status.

3 Q. Now, do you know why it was that BP had

4 to come out and do this audit and find these

5 things and tell Transocean?

6 A. No.

7 Q. Was -- Didn't Transocean have a

8 preventive maintenance practice of its own where

9 they could have found these things and not have

10 to wait for BP or ABS or Lloyd's?

11 A. With respect to fire and gas, it's an

12 ongoing battle. It's never 100 percent.

13 Q. Are you aware how many items were on the

14 BP rig audit list?

15 A. Do I know how many? No.

16 Q. Did anyone ever tell you what the number

17 was?

18 A. No. I didn't ask.

19 Q. No one ever told you, for example, that

20 the number was 390 jobs?

21 MR. BICKFORD:

22 Counsel, he's already said that no

23 one told him.

24 UNIDENTIFIED SPEAKER:

25 Excuse me, Captain. Can we ask

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1 Scott to use the microphone? We can't hear the
2 objection.

3 MR. BICKFORD:

4 I'm sorry. The objection is it's
5 asked and answered, and now you're testifying,
6 Counsel.

7 MR. GODFREY:

8 Actually, I'm not.

9 BY CAPT NGUYEN:

10 Q. You don't remember the number, Mr.
11 Williams?

12 A. No, I don't. I've never seen this
13 before today.

14 Q. Did anyone on Transocean -- Did
15 Transocean personnel above you ever share with
16 you the results of the BP audit, the particular
17 list of items that BP identified that needed
18 maintenance or fixing?

19 A. Yes.

20 Q. But they didn't give you the document

21 itself?

22 A. Right.

23 Q. All right. Turn to Page 41, please.

24 3.38. It says, quote, the integral monitor on

25 the port side drilling UPS is defective, end

ASSOCIATED COURT REPORTERS

1 quote. Do you know what that is?

2 A. Yes.

3 Q. Were you asked to fix that?

4 A. Yes.

5 Q. Did you fix it?

6 A. No.

7 Q. What is the integral monitor on the port
8 side drilling UPS? What does that do? What's
9 its function?

10 A. HMI, human-machine interface.

11 Q. And what does human-machine interface
12 mean?

13 A. That's how I can check the functions of
14 the UPS, change the parameters, adjust it,
15 whatever needed to be done to it.

16 Q. What's its function? What does it do on
17 board the rig?

18 A. The UPS?

19 Q. Yeah.

20 A. It's uninerruptable power supply for the
21 drilling package. There was nothing wrong with
22 the UPS.

23 Q. Just the integral monitor wasn't -- for
24 the UPS didn't work; is that correct?

25 A. Wasn't nothing wrong with it either.

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1 Q. So you determined that the BP finding
2 that the UPS integral monitor was defective was
3 wrong?

4 A. Yes. You got to touch the screen to
5 turn it on.

6 Q. All right. Turn to the next page, 42.
7 We've got two more on this list to ask you
8 about. See where it says 3.312 there?

9 A. Yes.

10 Q. It says, quote, the E. Houck system
11 giving NOB remote drilling control system
12 diagnostic access was defective, end quote. You
13 see that?

14 A. Yes.

15 Q. Were you asked to look at that?

16 A. Say again.

17 Q. Were you asked to look into that?

18 A. Yes, I was.

19 Q. Okay. Did you look into it?

20 A. Yes, I did.

21 Q. Did you fix it?

22 A. Yes, I did.

23 Q. Okay. Finally, it says -- 3.313, it

24 says, quote, thermographic inspection of the

25 switchboards and electrical switch gear has not

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1 been performed since the rig entered service in
2 2000, end quotes. Were you aware that the
3 inspection of the switchboards and electrical
4 switch gear by thermographic inspection had not
5 been performed in nearly ten years?

6 A. It's not my area.

7 Q. Is this -- So okay. So electrical
8 switch gear is not in your area?

9 A. No, it's not. It's eleven thousand
10 volts.

11 Q. All right. Now, do you recall that at
12 some point during this audit there was a test
13 that's called a blackout test? Do you recall
14 that?

15 MR. BICKFORD:

16 He wasn't there during this audit.

17 MR. GODFREY:

18 I'll rephrase the question. Fair

19 enough.

20 BY MR. GODFREY:

21 Q. Did anyone ever tell you about a BP

22 blackout test that took place around the time of

23 this audit?

24 A. Yes.

25 Q. Okay. And what's a BP blackout test?

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1 A. They would shut down the thrusters, they
2 would trip the ESDs for the thrusters so that we
3 had no propulsion to verify that the BP warning
4 system functioned.

5 Q. And did anyone tell you that in the BP
6 blackout test BP reported to Transocean in
7 September 2009 that the test proved
8 unsuccessful?

9 A. Yes.

10 Q. Okay. And do you recall being told that
11 the generator -- there's a problem with
12 generators?

13 A. No.

14 Q. Okay. Do you recall being told anything
15 as to why the BP blackout test was unsuccessful?

16 A. Because a couple of the thrusters didn't
17 come back on line automatically. They were
18 actually damaged by the ESD shutdown.

19 Q. All right. And you recall -- Well, were

20 you asked to do anything about that or not?

21 A. No. We had a third party come out and

22 repair the thrusters.

23 Q. Okay. Now, we've talked about -- I

24 appreciate your answers very much. We talked

25 about maintenance and fixing equipment and

ASSOCIATED COURT REPORTERS

1 various audits and that. From the time you got
2 on board the DEEPWATER HORIZON until the day of
3 the explosion, did you ever ask for a safety
4 shutdown of the rig?

5 MR. BICKFORD:

6 Asked and answered.

7 BY MR. GODFREY:

8 Q. You can answer, sir.

9 A. No.

10 Q. Okay.

11 A. I had shut down individual operations.

12 Not the whole rig.

13 Q. Okay. Did you ever go to Mr. Harrell
14 and say, "I think we should shut this rig down"?

15 A. No.

16 Q. Did you ever go to Captain Kuchta and
17 say, "I think we should shut this rig down"?

18 A. No.

19 Q. Now, did anyone from Transocean
20 headquarters in Switzerland ever come out and
21 talk to you about safety?

22 A. Yes.

23 Q. And when did that happen?

24 A. Several times.

25 Q. Did anyone from Transocean headquarters

ASSOCIATED COURT REPORTERS

1 in Switzerland ever come out and talk to you
2 about preventive maintenance?

3 A. Specifically, no.

4 Q. Okay. Anyone from Transocean
5 headquarters in Switzerland ever come out and
6 conduct a crew audit, sit down with each member
7 of the crew and find out what their concerns
8 might be?

9 A. Not individually, no.

10 Q. Now, we've talked about ABS audits, DMV
11 audits, BP audits, Lloyd's audits or surveys,
12 MODU audits. Did Transocean ever do a marine
13 assurance audit or vessel assurance audit, to
14 your knowledge?

15 A. We conducted start tours.

16 Q. Conducted what, sir?

17 A. Start tours.

18 Q. You conducted them yourself, right?

19 A. Correct.

20 Q. Okay. But did someone from Transocean

21 off rig ever come on board for a couple of days

22 or a week and conduct a top to bottom port to

23 starboard ship audit of the vessel DEEPWATER

24 HORIZON?

25 A. Not to my knowledge.

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1 Q. Not in the time you were on board the
2 vessel?

3 A. No, sir.

4 Q. Do you know when the last time the
5 vessel was dry docked?

6 A. No.

7 Q. Was it ever dry docked?

8 A. I don't know.

9 Q. I have no further questions, sir. Thank
10 you very much.

11 EXAMINATION

12 BY CAPT NGUYEN:

13 Q. Just one quick question. When Mr.
14 Godfrey asked you about the purpose of the ABS
15 survey, you said it was to generate work lists;
16 is that correct?

17 A. That end -- On my end of it, that's what
18 the purpose is.

19 Q. Right.

20 A. That's the net result for me.

21 Q. But your understanding is that ABS

22 Surveyor or DMV Surveyor, one of their purposes

23 on board a vessel is to verify complaints to

24 flag state requirements for the issuance of

25 statutory certificates. Are you aware of that?

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1 A. Yes, I am aware of that.

2 EXAMINATION

3 BY LT BUTTS:

4 Q. Mr. Williams, on this report we just
5 went through, could we turn to the cover page,
6 Page 1. In the top right-hand corner it says
7 distribution. Was anyone on one through five on
8 board the rig?

9 A. No.

10 Q. And what about prepared by or approved
11 by, was anyone on board the rig?

12 A. No.

13 Q. Now, do you know after this report was
14 done in September of 2009, did BP go ahead and
15 put it back on contract to go ahead and drill?

16 A. We never stopped working.

17 Q. You never stopped working?

18 A. No.

19 Q. Okay. Thank you.

20 CAPT NGUYEN:

21 Why don't we take about a

22 ten-minute break until 11:15. Thank you.

23 (WHEREUPON, A BRIEF RECESS WAS TAKEN)

24 CAPT NGUYEN:

25 Mr. Williams, may I remind you

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1 you're still under oath, sir. Please be seated

2 so we can get this hearing going, please.

3 Mr. Kohnke, please.

4 EXAMINATION

5 BY MR. KOHNKE:

6 Q. Are you ready, Mike?

7 A. Yes, sir.

8 Q. Mr. Williams, as you know, I'm Ned

9 Kohnke. We've met I think at least two times,

10 have we not?

11 A. Yes, sir.

12 Q. Let me ask you a question about the

13 relationship that existed between Transocean rig

14 and BP. Did the crew understand generally that

15 the DEEPWATER HORIZON was under a contract to BP

16 and was working for BP as directed?

17 A. Yes, sir.

18 Q. And, in fact, you mention you had worked

19 on the DEEPWATER HORIZON I think you said for

20 about three years; is that right?

21 A. Yes, sir.

22 Q. And in all that time, the rig was

23 working for BP?

24 A. Correct.

25 Q. And was going to go to another well

ASSOCIATED COURT REPORTERS

1 after this well was finished, which was going to
2 be yet another BP well?

3 A. Correct.

4 Q. And that contract, it may have had a day
5 rate, but it was a 365 -- Actually, it was a
6 several-year contract, and I think this record
7 reflects that it had an extension into the
8 future, did it not?

9 A. Yes. We were just informed of that
10 recently.

11 Q. So that when -- Well, let me talk about
12 repairs. There were different kinds of repairs.
13 There are repairs and then there's preventive
14 maintenance?

15 A. Correct.

16 Q. And preventive maintenance is sort of
17 regularly scheduled things that either have to
18 be done now or maybe can be deferred but

19 eventually have to be attended to. Would that

20 be a fair way to put it?

21 A. Yes.

22 Q. And repairs are things that break down

23 and they aren't on a schedule, they need

24 immediate attention?

25 A. In some cases, yes.

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1 Q. And with respect to handling those
2 repairs and handling preventive maintenance, it
3 was always necessary to contact -- and I'm not
4 saying you did the contacting, but certainly
5 others did -- to contact BP and to have to work
6 out with BP when these preventive maintenance
7 issues could be attended to, and if there was a
8 repair, whether it was a critical repair that
9 needed to be attended to right now?

10 MR. GODFRY:

11 Objection. Compound, multiplely
12 so, and leading.

13 CAPT NGUYEN:

14 I'm sure Mr. Kohnke will break it
15 down for us.

16 BY MR. KOHNKE:

17 Q. I'm trying to get through this because I
18 know you've got better things to do than sit

19 here.

20 A. I'm in no hurry.

21 Q. All right. With respect to the repairs

22 when a repair would happen, if it was critical

23 to the rig safety and the rig operations, BP

24 would have to decide whether or not it was going

25 to shut down the rig or shut down drilling in

ASSOCIATED COURT REPORTERS

1 order to perform that, that was a BP decision,
2 correct?

3 MR. GODFRY:

4 Objection. Leading and lack of
5 foundation.

6 MR. KOHNKE:

7 It's called cross-examination, so
8 yes, I think it is leading in that sense, but
9 you should talk to the young lady who sits next
10 to you about that same issue.

11 CAPT NGUYEN:

12 Remember my request that I made to
13 you guys, please.

14 MR. GODFREY:

15 Okay. Thank you.

16 BY MR. KOHNKE:

17 Q. Go ahead, Mike. Can you answer the
18 question?

19 A. Sometimes the maintenance would dictate
20 whether or not we shut down and the decision was
21 made for them simply because we couldn't
22 function or operate.

23 Q. Right. If there was a repair that could
24 be made without shutting down the drilling
25 operation, obviously that repair would be made

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1 as the drilling continues; is that a fair --

2 A. Correct.

3 Q. But there are certain repairs that might

4 have to be made to the rig that would

5 necessitate shutting down the rig, shutting down

6 its essential purpose?

7 A. Yes.

8 Q. And when that would happen, BP would

9 obviously be the one to make that decision, not

10 Transocean?

11 A. I don't know who made the decision.

12 MR. GODFREY:

13 Objection. Foundation. He's got

14 to establish the witness' knowledge of this as

15 to who has authority.

16 CAPT NGUYEN:

17 Mr. Williams, if you do have

18 knowledge, direct knowledge, you can reply to

19 the question.

20 THE WITNESS:

21 I would report -- If there was an
22 issue I was called upon to look into, I would
23 report to my supervisor what my findings were
24 and what I thought it would take to fix it, and
25 then the decision was made by other people.

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1 BY MR. KOHNKE:

2 Q. Do you know who Ronnie Sepulvado is?

3 A. Yes, I do.

4 Q. He's one of the BP well site leaders,

5 isn't he?

6 A. Yes.

7 Q. He's been out there the whole time, he's

8 been working on the DEEPWATER HORIZON the whole

9 time you were working out there too?

10 A. Yes, he was.

11 Q. Okay. Now, he testified this week that

12 when repair issues would arise, he would pass

13 those on to Houston for some consideration as to

14 whether or not the repairs were critical and

15 necessitated interruption. Does that sound

16 like -- Does that sound like something you were

17 aware of?

18 MR. BICKFORD:

19 I think, Mr. Kohnke, he was in the

20 critical path or not.

21 MR. KOHNKE:

22 Yes.

23 THE WITNESS:

24 I wouldn't be aware of that.

25 BY MR. KOHNKE:

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1 Q. Fair enough. Fair enough. I know that
2 certain repairs were always deferred until --
3 assuming they weren't critical, in a critical
4 path, they were deferred until the rig was
5 moving or in some cases until the rig would go
6 to shipyard; is that correct?

7 A. Correct.

8 Q. Okay. Let me talk to you a little bit
9 about the A-chair that you were questioned
10 about. Mr. Guide testified yesterday. Do you
11 know who John Guide is, by the way?

12 A. I heard his name before.

13 Q. If I told you he was BP's well team
14 leader who had supervisory authority over the
15 two company men, would that comport with your
16 understanding?

17 A. Yes, it would.

18 Q. Okay. He testified yesterday that once

19 the hard drive was replaced on the A-chair that
20 there were no further problems leading up to and
21 including April 20. Would that be testimony
22 that you would agree with or disagree with or
23 wouldn't be able to really comment on?
24 A. After the hard drive replacement I had
25 to reboot that chair again.

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1 Q. You said -- I didn't hear you. Say it
2 again.

3 A. After the hard drive replacement which
4 was performed by William Terrell, GPT, I had to
5 restart that chair again.

6 Q. You had to restart it?

7 A. Yes.

8 Q. And would that information have been
9 passed on up through the chain of command by
10 you?

11 A. It would have been recorded in RMS.

12 Q. Okay.

13 A. And I would have handed it over to my
14 relief.

15 Q. Okay. Mr. Sepulvado described the
16 process of how that information works up through
17 the chain of command. Is that information that
18 you understand would typically be passed on to

19 BP?

20 MR. GODFREY:

21 Objection. Lack of foundation.

22 THE WITNESS:

23 I don't know how it would get to BP

24 other than them being there when I did it.

25 BY MR. KOHNKE:

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1 Q. Would you defer to Mr. Guide and to Mr.

2 Sepulvado on those issues as to --

3 A. I didn't divert anyone to BP.

4 Q. No, no. I'm saying today would you say

5 Mr. Guide and Mr. Sepulvado would know more

6 about what they would do with this information

7 than you would?

8 MR. BICKFORD:

9 That's totally unfair. I mean he

10 doesn't even know who Mr. Guide is.

11 UNIDENTIFIED SPEAKER:

12 I can't hear.

13 MR. BICKFORD:

14 I'm sorry. That's totally unfair

15 to the witness. He testified he doesn't know

16 who Mr. Guide is, much less what he would do

17 with the information, so.

18 MR. KOHNKE:

19 I'm sorry. I thought he did know

20 who Mr. Guide is.

21 BY MR. KOHNKE:

22 Q. The BP company man, he would know more

23 about what he does with information than you

24 know what he does with information?

25 A. Sure.

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1 Q. Okay. Now, you were asked a number of
2 questions about the stop work authority, and I
3 just want to be clear that everyone on the rig,
4 including yourself, you all have stop work
5 authority?

6 A. Yes.

7 Q. Okay. And is there a line drawn as to
8 where you believe that stop authority -- stop
9 work authority ends and begins? For example, is
10 there something which you think needs to be
11 repaired, could present a safety hazard but it
12 falls below some standard that you're aware of?

13 A. No.

14 Q. So anything affecting the lives and
15 safety of yourself and your fellow crew members
16 falls within your stop work authority?

17 A. Yes.

18 Q. You mentioned a number of things today

19 in your testimony. BP panel bypass, purge
20 problems, alarm inhibitors, rubber that you saw,
21 the blue screen of death, all of those things,
22 and as I understand it, with respect to none of
23 those issues have you ever exercised any stop
24 work authority?

25 A. The work would already be stopped. If

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1 you have a blue screen of death, you're not
2 moving. You're stopped.

3 Q. Now, the good looking guy to your right,
4 Mr. Bickford, he's your lawyer; is that correct?

5 A. Yes, he is.

6 Q. And he's not just a lawyer like some of
7 the lawyers who sit there. He actually has
8 filed a suit on your behalf in this case; is
9 that correct?

10 A. He has.

11 Q. And among the people you've sued were
12 Transocean, BP, several of the other Parties In
13 Interest in this case? If you know.

14 A. I rely on my attorney to file suit.

15 Q. Fair enough. But you are aware that
16 suit has been filed against more than just
17 Transocean, just a number of people in this
18 case?

19 A. No, I'm not.

20 Q. Fair enough. Before you retained
21 counsel and filed suit, you gave a statement in
22 this case too in which I was present, did you
23 not?

24 A. Yes, sir, I did.

25 Q. Okay. And in that statement you didn't

ASSOCIATED COURT REPORTERS

1 mention any of the problems that you've talked
2 about today; isn't that correct?

3 A. Correct.

4 Q. Now, I want to talk to you a little bit
5 about the inhibited alarms that you talked
6 about, that you testified about. I think I
7 recorded what you said correctly, Mike. You
8 said that the DPOs monitored -- were monitoring
9 the alarms and they would activate these alarms
10 or activate a system if the situation required
11 it.

12 A. Correct.

13 Q. Okay. Now, we have testimony in this
14 record from Steve Bertone that Yancy Keplinger
15 was heard by him on the PA system saying, "Fire,
16 fire, fire," and then giving locations where the
17 fire was. Who is Yancy Keplinger?

18 A. Senior DPO.

19 Q. So he would have been one of the persons

20 monitoring those alarms?

21 A. Correct.

22 Q. Okay. So what you're saying I believe

23 is is that if the alarm didn't actually sound,

24 there was always at some point a BP operator who

25 was monitoring those alarms, and those stations

ASSOCIATED COURT REPORTERS

1 were fully manned at all times, and if something
2 would come across, then they would put it out
3 over a PA system?

4 A. Correct.

5 Q. Okay. That's an alternative system than
6 simply letting the alarm itself sound in the
7 middle of the night at 3:00 a.m.?

8 A. Yes.

9 Q. Now I want to talk to you a little bit
10 about the time you were -- I think you said you
11 were in the driller shack, and somebody came in
12 and had something in his hands. You said it
13 looked like -- I think you said it was a subsea
14 hand -- looked like pieces of rubber?

15 A. Yeah, it was rubber.

16 Q. The subsea hand was Mark Hay?

17 A. He's the senior guy.

18 Q. He's the senior guy on your hitch,

19 senior subsea guy on your hitch; isn't that

20 correct?

21 A. Yes, sir.

22 Q. Hitch as opposed to tour. This would be

23 you were working 21 and 21 at the time?

24 A. Correct. There was only one day that I

25 did not work with Mark Hay.

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1 Q. Was -- Would you agree that Mark Hay
2 would probably know more about the BOP than you
3 do?

4 A. Absolutely.

5 Q. And when this happened, when he came --
6 when this guy came in with it and you saw it,
7 Mark Hay's comment was, "It's not a problem.
8 This happens all the time"?

9 A. Yes.

10 Q. Okay. As I understood your testimony,
11 you thought about it, and you kind of put it
12 together a couple of days later, maybe a week
13 later, because you then connected what he had in
14 his hand to the -- what turned out to be the
15 bumping of the stick and the moving of the drill
16 pipe; is that correct?

17 A. Correct.

18 Q. Okay. Now, would the drill crew and the

19 subsea engineers be in a better position than
20 you to know whether or not the annulars were
21 closed when that drill pipe moved?
22 A. Yes.
23 Q. Okay. And if they were to testify that
24 the annular was not closed around that drill
25 pipe, would that tend to change your thinking

ASSOCIATED COURT REPORTERS

1 about how you connected it a week or so later?

2 A. Not possible. I saw ten thousand PSI on
3 the screen. The annular had to be closed.

4 Q. Okay. Well, you saw it when the -- When
5 the stick was bumped, you saw it. It had to be
6 closed. The annular was closed. You're sure it
7 was the annular?

8 A. Yes. They were testing.

9 Q. And if they say it was not the annular,
10 if they have some other version of that, I'm
11 saying to you would they know more about that
12 than you?

13 A. Yes.

14 Q. One second. Is there an -- Is there a
15 number, a worldwide 1-800 toll free type number
16 that's available -- Transocean makes available
17 to all of their rigs worldwide for its hands to
18 call in and to anonymously report any concerns

19 or problems they have with whatever might be

20 going on on the rig?

21 A. Not to my knowledge.

22 Q. Okay. You don't know, you're not aware

23 of that number?

24 A. No.

25 Q. Okay. If you had a concern, if you had

ASSOCIATED COURT REPORTERS

1 a safety concern, there were a number of options
2 available to you. We've already talked about
3 stop work; is that correct?

4 A. Yes.

5 Q. But on a much less dramatic or draconian
6 way to express your concern, it would have been
7 to point out these same things that you've
8 described today to any one of those safety
9 inspectors that would come on the rig from time
10 to time from the various organizations that
11 we've talked about; isn't that another way to
12 express your concerns?

13 A. Didn't normally have direct contact with
14 those folks.

15 Q. You say you didn't normally? I heard --

16 A. I did on one occasion.

17 Q. And on that occasion did you avail
18 yourself of the opportunity to express any of

19 the concerns that we've talked about today?

20 A. No.

21 Q. Thank you, sir.

22 EXAMINATION

23 BY MR. MATHEWS:

24 Q. I have a follow-up to one of Mr.

25 Kohnke's questions if you don't mind.

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1 He referred to Mr. Keplinger's
2 announcement saying, "Fire, fire, fire." Do you
3 recall that question?

4 A. Yes, I do.

5 Q. Say someone was in the shaker room and
6 the alarm was inhibited. If it was not
7 inhibited, would an audio or visual alarm go off
8 near the shakers? If it was not inhibited, if
9 it was two high highs?

10 A. Yes. Yes.

11 Q. When did you hear "fire, fire, fire" if
12 you did hear it?

13 A. Once I made it to the main deck.

14 Q. So how much time between -- Well, it's
15 obviously after the explosion.

16 A. After the explosion.

17 Q. So about how much time between I guess
18 when you indicated that there was a problem

19 going on within the room that you were in until

20 you heard "fire, fire, fire," estimate?

21 A. I have very little recollection of time.

22 Q. And if you were to be in the shaker room

23 hypothetically and you had a high high go off,

24 how quickly would the notification to you that

25 there was something going on within that area?

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1 A. If the alarms were in what state?

2 Q. High, high.

3 A. If the alarms were inhibited?

4 Q. If they were not inhibited.

5 A. Not inhibited it would be instantaneous.

6 Q. Thank you very much, sir.

7 EXAMINATION

8 BY CAPT NGUYEN:

9 Q. Mr. Williams, just a couple of follow-up
10 questions here.

11 A. Sure.

12 Q. You agree that some maintenance items or
13 repair items are minor, that they can be
14 deferred, according to Mr. Kohnke, correct?

15 A. Yes.

16 Q. However, if these items are continually
17 getting deferred, do you believe that is an
18 indication of a systemic problem with the rig

19 maintenance program?

20 A. No.

21 Q. Based on your experience, do you think

22 there are any systemic problems with the rig

23 maintenance program?

24 A. There's never enough time.

25 Q. Never enough time. Is that the only

ASSOCIATED COURT REPORTERS

1 factor, the only problem?

2 A. That's the only problem.

3 Q. And I -- Okay.

4 CAPT NGUYEN:

5 Anadarko, MOEX?

6 MS. KIRBY:

7 No questions.

8 CAPT NGUYEN:

9 Cameron?

10 MR. JONES:

11 No questions. Thank you, sir.

12 CAPT NGUYEN:

13 Halliburton?

14 MR. GODWIN:

15 No questions, Captain.

16 CAPT NGUYEN:

17 Weatherford?

18 MR. LEMOINE:

19 No questions. Thank you.

20 CAPT NGUYEN:

21 M-I SWACO.

22 MR. EASON:

23 No questions.

24 CAPT NGUYEN:

25 Dril-Qip?

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1 MR. KAPLAN:

2 No questions.

3 CAPT NGUYEN:

4 Douglas Brown?

5 MR. GORDON:

6 Yes, sir.

7 EXAMINATION

8 BY MR. GORDON:

9 Q. Mr. Williams, my name is Steve Gordon.

10 First, I'd like to apologize for comparing the

11 captain to a cab driver.

12 Sir, I just want to let you understand

13 who I represent here. I represent Douglas

14 Brown. You know who he is?

15 A. Yes, I do.

16 Q. Okay. But I also outside of here

17 represent the family of Karl Kleppinger. You

18 know who he is?

19 A. Yes, I do.

20 Q. Okay. So I want to make it clear.

21 There's a -- There was on this vessel a Karl

22 Kleppinger, and then there was a Yancy

23 Keplinger, correct?

24 A. Correct.

25 Q. Okay. And the Keplinger person that you

ASSOCIATED COURT REPORTERS

1 have been referring to at various times, that is
2 the dynamic positioning officer, DPO?

3 A. Senior DPO.

4 Q. Senior DPO. And it is not the Karl
5 Kleppinger, Jr. who died who was a shaker hand?

6 A. Correct.

7 Q. And I'd like to ask you, did you know --
8 Do you know if Karl Kleppinger, Jr. was in the
9 shaker room at the time of this event?

10 A. I do not.

11 Q. All right. He was on tower; correct?

12 A. Yes, he was.

13 Q. And his job normally would entail being
14 in the shaker room; correct?

15 A. If there's mud flowing, he's going to be
16 in the shaker house.

17 Q. All right. And so I'd like to focus in
18 for a moment on the shaker room, the mud room, I

19 think it's called the pit room or pump room, and

20 they are, as I understand it, three areas that

21 are interconnected and they are air tight; is

22 that correct?

23 A. Yes, it is.

24 Q. And it is known on the rig that if

25 there's a kick, certainly a potential blowout,

ASSOCIATED COURT REPORTERS

1 that those rooms will have dangerous gas levels
2 accumulate in those rooms; correct?

3 A. Yes, it is.

4 Q. And they have, I would hope, gas alarms
5 in there to detect the presence of explosive
6 gas?

7 A. Yes, they do, and toxic.

8 Q. Can you specifically tell us, please,
9 what are those alarms, and what are they called?

10 A. There's several toxic and combustible
11 sensors located in all four of those spaces.

12 Q. Are there -- Is there one, for instance,
13 in the shaker room?

14 A. More than one.

15 Q. More than one. And how many would you
16 say total are in those three rooms that are
17 ultimately -- or four rooms -- ultimately
18 interconnected?

19 A. Around 20.

20 Q. Are they in one zone or are they in

21 multiple zones?

22 A. Multiple zones.

23 Q. How many zones did the 20 alarms

24 comprise?

25 MR. BICKFORD:

ASSOCIATED COURT REPORTERS

1 He said it's about 20.

2 BY MR. GORDON:

3 Q. Approximately 20.

4 A. I believe there are two different zones
5 side by side, adjoining zones.

6 Q. Was it those zone alarms that were
7 inhibited?

8 A. Not to my knowledge.

9 Q. Do you know if they were inhibited or
10 overrode or somehow suppressed?

11 A. I do not know.

12 Q. In the -- Have you ever seen those
13 alarms in the inhibited mode?

14 A. Yes.

15 Q. Did --

16 A. I would place them in it.

17 Q. Say it again?

18 A. I would place them in it.

19 Q. For what period of time?

20 A. For testing.

21 Q. Okay. Were they ever -- Like when you

22 first came on as an ET, were they ever in the

23 inhibited mode?

24 A. Occasionally if one had a fault, it

25 would be inhibited until it got repaired.

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1 Q. Do you know if any of those alarms were
2 a problem on April 20 at 2200?

3 A. No, I don't.

4 Q. Do you know if those zone alarms sounded
5 before the shaker room blew up?

6 A. There was no general alarm sounded.

7 Q. There was no general alarm?

8 A. No.

9 Q. Okay. And if the alarms, the gas sensor
10 alarms, were working properly, they would have
11 sounded -- not the zone alarms but the just
12 actual gas detection alarms?

13 A. I need to correct something you're
14 saying. There are no such things as zone
15 alarms.

16 Q. Please help me out.

17 A. There's only a general alarm that will
18 sound over the entire rig. It's audible and

19 it's visual.

20 Q. All right. When the gas detection
21 alarms in the shaker room, pump room, pit room,
22 mud room were -- when there were two or more,
23 they were supposed to actuate the general alarm?

24 A. Correct.

25 Q. Was that general alarm or those two

ASSOCIATED COURT REPORTERS

1 alarms within that 20 plus, were they somehow
2 inhibited electronically?

3 MR. BICKFORD:

4 You're talking about the individual
5 alarms within the shaker room and that four-room
6 suite, or are you talking about the general
7 alarm itself?

8 BY MR. GORDON:

9 Q. The general alarm, was it somehow
10 disconnected from the two alarms that can go off
11 within a zone thereby actuating the general
12 alarm? Do you understand?

13 A. Your question is --

14 Q. It's okay to say.

15 A. It's not accurate.

16 Q. Okay. Help me out then.

17 A. How the system works is when any sensors
18 anywhere on the rig within one zone go into a

19 high high state, the general alarm will sound

20 and ESDs will trip.

21 Q. Okay.

22 A. That is how it's supposed to work.

23 Q. I want you to assume with me there was a

24 bunch of gas that night coming up. Will you do

25 that?

ASSOCIATED COURT REPORTERS

1 A. Sure.

2 Q. Do you have any problems doing that from
3 what you saw?

4 A. No.

5 Q. Certainly enough gas to put any
6 operating sensor into a high high mode; correct?

7 A. Sure.

8 Q. All right. Do you know if the general
9 alarm that was associated with any of the
10 sensors within those four rooms on April 20 at
11 or about 2200 hours was inhibited?

12 A. The alarm, the general alarm, for the
13 entire rig was inhibited, not just for those
14 four spaces.

15 Q. So the answer to that question would be
16 yes?

17 A. Yes.

18 Q. And as I understand these gas sensors,

19 they are supposed to be sort of the front line,
20 if you will, because perhaps human senses cannot
21 detect the gas that they can detect; correct?
22 A. Yes.
23 Q. And since it's anticipated that the gas
24 level in those rooms that we're talking about
25 would get to an explosive point early in a

ASSOCIATED COURT REPORTERS

1 kickback or blowout, the general alarm is the
2 alarm that would tell those people in those
3 rooms to get out of there; correct?

4 A. Correct.

5 Q. In fact, that is the procedure I
6 think -- Well, let me ask you. Was there a
7 written procedure on board the DEEPWATER HORIZON
8 for those fellows that work in those rooms to
9 abandon them when that general alarm would
10 actuate?

11 A. Immediately, yes.

12 Q. In fact, on this well, there were times
13 before when the DEEPWATER HORIZON had to cordon
14 off those rooms; correct?

15 A. Yes.

16 Q. Do you know how many times that happened
17 on this MACONDO Well?

18 A. While I was on board I know of one.

19 Q. Now, you were asked by Captain Nguyen
20 about systemic problems regarding maintenance.

21 Do you remember that?

22 A. Yes.

23 Q. And I think I want to reword that. You
24 said that there was never enough time.

25 A. Right.

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1 Q. But as I understood your testimony, you
2 also asked for certain things to be repaired,
3 and those things -- or not repaired -- replaced,
4 and you never got all the items you requested;
5 is that correct?

6 A. You have to be more specific.

7 Q. All right. Did you ever ask for
8 specific parts to fix something and not get
9 them?

10 A. No. I may have -- No. I've always
11 gotten my parts that I asked for.

12 Q. All right. And how quick would the
13 turn-around be?

14 A. Varied greatly.

15 Q. It was good -- You felt good with that?

16 A. No. It was horrible. Some turn-arounds
17 I waited on parts for a year.

18 Q. All right. I hate to ask you to do this

19 but those parts cost money, right?

20 A. Yes.

21 Q. And it's not in this moment when we're

22 talking about, we're not talking about BP, we're

23 talking about Transocean, your employer, giving

24 you the parts you requested; correct?

25 A. Yeah, but that wasn't the holdup.

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1 Q. What was the holdup?

2 A. The parts were no longer manufactured
3 and we had to find an outside vendor to make the
4 parts to OE specs.

5 Q. So there was equipment on board the
6 DEEPWATER HORIZON that was no longer made?

7 A. Yes. A lot of it.

8 Q. Okay. I'll bite. Anything related to
9 the alarm system?

10 A. Not to my knowledge.

11 Q. How about the phone system?

12 A. We had the upgrade standing by waiting
13 to be installed.

14 Q. Could you tell the people here, sir,
15 about the phone system on board the DEEPWATER
16 HORIZON?

17 A. What about it? I mean what do you want
18 me to tell them?

19 Q. Okay. Did it work without electricity?

20 A. Yes.

21 Q. Wasn't there a problem -- This may have
22 predated you. Wasn't there a problem regarding
23 the phone system? Not the electrical phone
24 system because there's supposed to be a phone
25 system that operates intership when the

ASSOCIATED COURT REPORTERS

1 electricity is down; correct?

2 A. Correct.

3 Q. And that functioned?

4 A. The last time I tested it, it did.

5 Q. All right. What's the name of that

6 phone system?

7 A. Eccho phone system.

8 Q. I'm sorry?

9 A. Eccho phone.

10 Q. Eccho. And just humor me. Is that the

11 one where you actually turn --

12 A. Yes, it is.

13 Q. So it generates its own power?

14 A. It's own power.

15 Q. And is that within the scope of the ET?

16 A. Yes, it is.

17 Q. Based upon your training and your

18 experience, if the general alarms associated

19 with the sensors in the rooms that we've been
20 talking about, the shaker room, the pump room,
21 the mud room, and so on had worked properly,
22 would the general alarm have sounded before any
23 explosion?

24 A. In my opinion, yes.

25 Q. I'd like to know -- Because I'm unclear

ASSOCIATED COURT REPORTERS

1 as to who had knowledge of this inhibited

2 general alarm. Okay?

3 A. Okay.

4 Q. Now, normally I would just ask about the

5 captain because this was a vessel, right?

6 A. Yes.

7 Q. And a captain is supposed to be the

8 ultimate or Master in charge of the vessel, in

9 command of the vessel; correct?

10 A. Yes.

11 MR. DYKES:

12 Let me interrupt this thing right

13 here. That question's been gone over several

14 times already, so I know it will be in the

15 transcript.

16 MR. GORDON:

17 Yes, sir.

18 MR. DYKES:

19 That was one of the very first

20 questions we asked early on.

21 MR. GORDON:

22 Okay.

23 MR. DYKES:

24 And I'm going to ask this of all

25 the attorneys. If your question's been asked,

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1 try not TO ask it again. Just get to your
2 questions. We understand what's going on here,
3 so we're just trying -- If we've asked the
4 question or it's been asked, ask those questions
5 that have not been asked.

6 MR. GORDON:

7 All right.

8 MR. DYKES:

9 Thank you.

10 BY MR. GORDON:

11 Q. I'm just going to ask you to assume when
12 I talk about the captain I'm also talking about
13 the OIM because of the way Transocean does it's
14 latch step --

15 A. Okay.

16 Q. -- management. Did the OIM and the
17 captain have knowledge of the overriding of the
18 general -- well, strike that -- have knowledge

19 of the suppression of the general alarm?

20 MR. FANNING:

21 Excuse me, Captain. I have an
22 objection. There was more than one OIM on this
23 rig for a long period of time and even separate
24 hitches, so I think Mr. Gordon has to be more
25 specific. When he says the OIM, I don't know

ASSOCIATED COURT REPORTERS

1 who he's referring to.

2 MR. SCHONEKAS:

3 Same Objection.

4 BY MR. GORDON:

5 Q. Mr. Williams --

6 CAPT NGUYEN:

7 Mr. Williams, just answer on what

8 you know.

9 THE WITNESS:

10 The captain and the OIM both had

11 access to the same computer I did.

12 BY MR. GORDON:

13 Q. All right. So the data was available to

14 them?

15 A. Yes.

16 Q. Now, the people below the captain and

17 the OIM would be who next in line in your

18 opinion?

19 A. The one below that would be the chief
20 mate and below that would be Senior DPO, below
21 that would be DPO.

22 Q. Okay. So the chief mate was who?

23 A. There were two. Mike Dowel and David
24 Young.

25 Q. Do you know if they had specific

ASSOCIATED COURT REPORTERS

1 knowledge of this?

2 A. No, I don't. They have access to the

3 same data I do.

4 Q. And we know the Senior DPO did, right?

5 A. Yes.

6 Q. Now, that's Mr. -- at least one of them

7 is Mr. Keplinger?

8 A. Correct.

9 Q. Do you know if Mr. Yancy Keplinger was

10 in the bridge the night of April 20?

11 A. Yes.

12 Q. Do you know what time he got there?

13 A. No, I don't.

14 Q. Do you know if he got there after the

15 explosion in the shaker room?

16 A. I do not know.

17 Q. And, once again to clarify, it was his

18 role to sort of be the automated general alarm?

19 MR. MATHEWS:

20 Just for the record, we don't know

21 if there was an explosion in the shaker room.

22 MR. GORDON:

23 Okay.

24 BY MR. GORDON:

25 Q. Do you know if there was an explosion in

ASSOCIATED COURT REPORTERS

1 the shaker room, mud room, pit room?

2 A. No, I don't. I don't know.

3 Q. You do know that was an explosion of

4 Engine 3; correct?

5 A. My opinion based on what I saw, what I

6 heard, what I smelled, Engine Number 3 exploded.

7 Q. I'd like to talk about the BOP issue

8 regarding the entire fleet being overridden.

9 A. Okay.

10 Q. All right. If the entire fleet was

11 overrode, that must have come from a managerial

12 decision on shore from Transocean?

13 A. I don't know.

14 Q. All right.

15 A. I'm just repeating what I heard. What

16 was told to me.

17 Q. Now, earlier you testified that when you

18 went to start the generator, Paul Meinhart was

19 with you?

20 A. Correct. Motorman.

21 Q. Was Willie Stoner with you?

22 A. No, he was not.

23 Q. When the general alarm is to sound, the

24 air intake into the engine control room is

25 supposed to shut down; correct?

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1 A. Depends on which zones.

2 Q. All right. Well, when the engine room
3 or engine control room sensors, gas detectors,
4 operate or function, and two or more operate,
5 they are supposed to actuate the -- stop the
6 flow of the air into those rooms; correct?

7 MR. BICKFORD:

8 Just so that we're clear, Mr.
9 Gordon, I believe the witness' testimony has
10 been that there are no sensors within the engine
11 room with regard to gas detection, that those
12 are on the actual intake panel on the outside of
13 the engine room. Is that correct?

14 THE WITNESS:

15 Correct.

16 MR. GORDON:

17 Yes. I said engine control room.

18 BY MR. GORDON:

19 Q. Are there sensors in the engine control

20 room?

21 A. Not that I'm aware of.

22 Q. Okay. Well, basically if they -- If the

23 general alarm for that zone had sounded, one of

24 the effects is to automatically close the air

25 going in?

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1 A. Correct.

2 Q. And that happened once before, as you
3 testified?

4 A. Incidental.

5 Q. Yeah, incidentally, and it sucked in the
6 door?

7 A. Correct.

8 Q. All right. Do you know if it -- I guess
9 it didn't shut down the engine effectively
10 because it got air after pulling those doors
11 off?

12 A. I don't know the result other than the
13 doors were tore off.

14 Q. All right. Is that the only alarm or
15 the only method to shut air off going into the
16 engines?

17 MR. BICKFORD:

18 When you say the only effort, in

19 other words, to shut the -- to shut that vent

20 or --

21 MR. GORDON:

22 Yes.

23 MR. BICKFORD:

24 Okay.

25 BY MR. GORDON:

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1 Q. In other words, is that the only
2 automated method to shut off the air coming into
3 the engines?

4 MR. BICKFORD:

5 I'm sorry. See, I just want to
6 clarify. When you're talking about automated
7 methods, you mean if in fact sensors go off if
8 they trip the general alarm, the general alarm
9 essentially actuates an emergency shutdown, and
10 that's what you're talking about, that's
11 automated method?

12 MR. GORDON:

13 Right.

14 BY MR. GORDON:

15 Q. I'm not saying -- Whether it's inhibited
16 or not, if it all functioned properly, I call
17 that automatic. Would you agree with me?

18 A. Yes.

19 Q. Okay. So --

20 MR. BICKFORD:

21 So you're asking him is there

22 another automatic system?

23 MR. GORDON:

24 That's right.

25 BY MR. GORDON:

ASSOCIATED COURT REPORTERS

1 Q. Another automatic system to stop the
2 engine from getting air?

3 A. Not that I know of.

4 Q. Earlier you testified that you, through
5 your experience, was able to trip the BOP?

6 A. The BOP control panel.

7 Q. Right. And I take it that the design of
8 the control panel or the wiring, the design of
9 it, permitted you to do that; correct?

10 A. Yes.

11 Q. And that panel was made by who?

12 A. I don't recall.

13 Q. Cameron?

14 A. I don't recall.

15 Q. Do you know if Cameron had knowledge of
16 the Transocean industry wide practice of
17 overriding?

18 A. I don't know.

19 MR. BICKFORD:

20 Understand that he has not

21 testified that there is an industry wide

22 practice. Only that someone told him that.

23 MR. GORDON:

24 I understand that.

25 MR. BICKFORD:

ASSOCIATED COURT REPORTERS

1 Okay.

2 MR. GORDON:

3 I doubt someone would say that

4 unless they believed it.

5 BY MR. GORDON:

6 Q. Go ahead.

7 A. I don't know.

8 Q. Did you ever interact with anybody from
9 the manufacturer of the BOP during your entire
10 time on the vessel?

11 A. No, I did not. The mini purge system
12 was from another vendor. I just don't recall
13 the name. It wasn't Cameron.

14 Q. All right. Are you familiar with what's
15 called the deadman on the BOP?

16 A. Vaguely.

17 Q. Was the maintenance of the deadman
18 functionality within the ET?

19 A. No, it was not.

20 Q. Earlier you were asked about when the

21 vessel went dark. Do you remember that?

22 A. Yes.

23 Q. If the vessel goes dark, can you lose

24 your engine power?

25 A. Not necessarily.

ASSOCIATED COURT REPORTERS

1 Q. All right. Do you know if when you went
2 dark that time you lost your thrusters?

3 A. I have no idea. I was on the deck.

4 Q. Earlier you testified that when the EDS
5 was accidentally -- or ESD was accidentally
6 pushed which caused that going dark that it
7 damaged the thrusters. And I probably wrote
8 that down wrong.

9 A. Yeah. You've got too many things
10 confused.

11 Q. Okay. What damaged the thrusters?

12 A. An ESD test.

13 Q. Just a test?

14 A. Yes.

15 Q. How did that happen?

16 A. Testing the ESDs and when the thruster
17 went -- when it shut the thruster down, it
18 damaged it.

19 Q. Was there a written policy for powering

20 down?

21 A. Yes.

22 Q. Where was that kept?

23 A. In the RMS system.

24 Q. That's the computer program?

25 A. Yes.

ASSOCIATED COURT REPORTERS

1 Q. Okay. Was there --

2 A. We would print it, so I would say yeah,
3 that was printed down. We would print the PM to
4 do the work.

5 Q. As I understand, the RMS system came on
6 line somewhere around March or April, February
7 maybe of 2010?

8 A. No. It would be before then.

9 Q. When?

10 A. Fall of last year.

11 Q. Okay. Before fall of '09, was there a
12 written procedure on powering down?

13 A. Powering down what?

14 Q. The engines.

15 A. I don't know. I don't mess with
16 engines.

17 Q. Okay. How about the generators?

18 A. Don't mess with them either.

19 Q. All right. Do you feel that the
20 dissemination of information by Transocean to
21 all the people that worked on board the
22 DEEPWATER HORIZON of issues on safety was good
23 or bad?

24 A. Adequate.

25 Q. All right. For instance, do you know if

ASSOCIATED COURT REPORTERS

1 Doug Brown, for instance, had knowledge that
2 there were -- that there was an alarm inhibited?
3 Do you know for sure that he knew about that?

4 CAPT NGUYEN:

5 Mr. Gordon, this is getting way out
6 there.

7 MR. GORDON:

8 Well, I don't think so because IPP
9 is --

10 MR. SCHONEKAS:

11 I'm going to object.

12 MR. GORDON:

13 Let me respond, please. PII Brown
14 is before the Board.

15 CAPT NGUYEN:

16 Correct.

17 MR. GORDON:

18 And I think that it is not good to

19 have an inhibited alarm, and I want to make sure
20 that this man and all others are not going to
21 testify that PII Brown had knowledge of such a
22 dangerous thing.

23 CAPT NGUYEN:

24 But he can't -- I mean he can't
25 testify to what Mr. Brown's knowledge or opinion

ASSOCIATED COURT REPORTERS

1 was of what's going on.

2 MR. GORDON:

3 Well --

4 CAPT NGUYEN:

5 Mr. Brown can testify himself

6 whether he has knowledge or not.

7 MR. GORDON:

8 My question is about the

9 dissemination of information.

10 BY MR. GORDON:

11 Q. For instance, did you see a memo to

12 everybody on board that the alarms have been

13 overridden or inhibited in some fashion?

14 A. General?

15 Q. General alarm.

16 A. No, I didn't.

17 Q. Okay. Thank you.

18 EXAMINATION

19 BY MR. DYKES:

20 Q. Mr. Williams --

21 A. Yes, Captain. Oh, you're not a --

22 Q. I've got a question. Hang on. Earlier

23 you made reference to --

24 UNIDENTIFIED SPEAKER:

25 I wasn't going to miss it this

ASSOCIATED COURT REPORTERS

1 time.

2 BY MR. DYKES:

3 Q. You made reference to the BOP panel in
4 the driller shack being put into the bypass mode
5 because of the purge system within the panel.

6 A. Correct.

7 Q. Okay. With placing that panel in
8 bypass, are you bypassing the functions of the
9 panel, or are you bypassing the functionality of
10 the purge system for the panel?

11 A. Bypassing the purge.

12 Q. Okay. Thank you.

13 CAPT NGUYEN:

14 Captain Kuchta.

15 EXAMINATION

16 BY MR. SCHONEKAS:

17 Q. Good afternoon, Mr. Williams. My name
18 is Kyle Schonekas. I represent the captain.

19 Sir, there's been a lot of questions about the
20 fact that you had certain rights to do certain
21 things if you viewed something that was unsafe.

22 Do you recall that?

23 A. Yes, sir.

24 Q. I want to ask whether or not you knew
25 that you in fact not only had a right but you

ASSOCIATED COURT REPORTERS

1 had an obligation to stop anything that you

2 believed to be unsafe?

3 A. Yes.

4 Q. In fact, sir, that was part of the

5 training that you received from Transocean; was

6 it not?

7 A. Yes, it was.

8 Q. You had the responsibility to not

9 participate in any unsafe act; is that right?

10 A. Correct.

11 Q. You had the responsibility to interrupt

12 any unsafe act; is that right, sir?

13 A. Yes, I did.

14 Q. And you also had the obligation to

15 report that to the company; is that right?

16 A. No.

17 Q. You don't believe you did, sir?

18 A. No, I don't.

19 Q. I want to refer you, if you would, sir,
20 to Section 1.10 of the health and safety manual.

21 Do you recall receiving that?

22 CAPT NGUYEN:

23 What section, 1.10?

24 MR. SCHONEKAS:

25 1.10. I'd be happy to show it to

ASSOCIATED COURT REPORTERS

1 him.

2 MR. BICKFORD:

3 Please.

4 BY MR. SCHONEKAS:

5 Q. Let me read it for the record so

6 everyone will have the benefit of it.

7 MR. BICKFORD:

8 Sure.

9 BY MR. SCHONEKAS:

10 Q. All company and personnel, semicolon,
11 shall have the obligation and responsibility not
12 to participate in any unsafe act and also has
13 the obligation and responsibility to interrupt
14 any operation to prevent any unsafe act or
15 unsafe condition causing an incident. Each
16 individual also has the obligation and
17 responsibility to take action to correct any
18 unsafe action or behavior. Do you recall that,

19 sir?

20 A. Yes.

21 Q. Well, let's talk now about the

22 inhibition of these alarms that we've heard so

23 much about today. All right, sir?

24 A. Okay.

25 Q. You don't know, do you, sir, whether or

ASSOCIATED COURT REPORTERS

1 not the alarms in the shaker room were disabled;

2 is that correct?

3 A. Correct.

4 Q. And you don't know whether or not there

5 were alarms sounding in the shaker room when

6 this went off; is that right?

7 A. There was no general alarm sounding.

8 Q. You say there was no general alarm

9 sounding when you were on the phone with your

10 wife; is that right? Or at any time, correct,

11 sir?

12 A. At any time there was not any general

13 alarm.

14 Q. Well, in fact, do you recall testifying,

15 sir, that you didn't even hear the statement

16 over the PA system that there was a high gas

17 level?

18 A. No, I didn't, not over the normal

19 PA.

20 Q. You didn't hear, your wife heard it;

21 isn't that right?

22 A. Correct.

23 Q. And she said to you, "What's that?"

24 Right?

25 A. Correct.

ASSOCIATED COURT REPORTERS

1 Q. And said, "Maybe you should go and do
2 something," or, "Do you hear that?" Or words to
3 that effect, right, sir?

4 A. Yes.

5 Q. And, in fact, you gave a statement to
6 the Coast Guard; is that right, sir?

7 A. I did.

8 Q. And in the Coast Guard statement you
9 stated you heard a hissing sound and multiple
10 alarm sounds; is that right, Sir?

11 A. Yes, I did.

12 Q. Now, sir, I believe you testified in
13 response to BP's lawyer's questions -- or it may
14 have been initially from the Panel's
15 questions -- that when you first joined the rig
16 that you were dismayed by the number of
17 inhibitions you saw; is that correct?

18 A. Yes, I was.

19 Q. And you made it a point, did you not,

20 sir, to identify all of these inhibitions or

21 bypasses, correct?

22 A. I did.

23 Q. And you kept a log, correct?

24 A. I did.

25 Q. And you made it your business one by one

ASSOCIATED COURT REPORTERS

1 to correct all of those inhibitions; is that

2 right, sir?

3 A. Yes, sir, I did.

4 Q. And, in fact, you did that prior to the

5 explosion?

6 A. Yes, sir, I did.

7 Q. So as you sit here today, you're not

8 aware of any inhibition in the alarm system

9 which you participated in; is that correct, sir?

10 A. On an individual level, no.

11 Q. Now, you also said, did you not, sir,

12 that the OIM and the captain and some other

13 people were aware of these inhibitions; is that

14 right?

15 A. Yes.

16 Q. Tell me of the conversations that you

17 had with the captain concerning these

18 inhibitions.

19 A. I didn't have a conversation with the

20 captain.

21 Q. You never had a single conversation with

22 the captain about any of these phenomena; isn't

23 that right, sir?

24 A. Yes.

25 Q. In fact, what you're relying upon is

ASSOCIATED COURT REPORTERS

1 some other people telling you that they think
2 they told the captain about that; is that right,
3 sir?

4 MR. BICKFORD:

5 Well, objection. Relying upon?

6 MR. SCHONEKAS:

7 Yeah. Relying on for the basis of
8 the statement. I'll rephrase it, Scott.

9 MR. BICKFORD:

10 Basis of what statement?

11 BY MR. SCHONEKAS:

12 Q. You made a statement, did you not, sir,
13 in your testimony earlier today that the captain
14 was aware of these things; is that right?

15 MR. BICKFORD:

16 I don't remember that statement.

17 MR. SCHONEKAS:

18 Well, I'm asking him.

19 BY MR. SCHONEKAS:

20 Q. Did you or did you not say that?

21 A. My testimony is the captain has access

22 to the same information I do.

23 Q. All right, sir. And tell me what

24 document the captain had access to that showed

25 on the day of April 20th that these -- any of

ASSOCIATED COURT REPORTERS

1 these systems were overridden?

2 A. There would not be a document. It's a
3 computer program.

4 Q. Well, sir, in fact, there isn't
5 anything; isn't that right? Let me ask you
6 this, sir.

7 CAPT NGUYEN:

8 Wait. Wait.

9 MR. BICKFORD:

10 He just testified that it was a
11 computer --

12 MR. SCHONEKAS:

13 Can we get it from the witness,
14 Scott, as opposed to you?

15 MR. BICKFORD:

16 No. He testified it was a computer
17 program.

18 MR. SCHONEKAS:

19 All right.

20 BY MR. SCHONEKAS:

21 Q. What is the computer program that would

22 have shown the captain that the system was

23 overridden and that people wouldn't get the

24 alarms of high gas?

25 MR. BICKFORD:

ASSOCIATED COURT REPORTERS

1 He testified that the general alarm
2 was inhibited, not overridden.

3 MR. SCHONEKAS:

4 All right. Inhibited.

5 MR. BICKFORD:

6 Mr. Schonekas, if we can stick to
7 the terminology that he's using, because it's
8 specific terminology in this case. Go ahead and
9 ask the question, please.

10 BY MR. SCHONEKAS:

11 Q. Well, sir, you understood what I meant,
12 did you not? Overridden or inhibited?

13 CAPT NGUYEN:

14 Counselor, you need to be exact.

15 MR. SCHONEKAS:

16 I'll rephrase it. Thank you,
17 Captain.

18 BY MR. SCHONEKAS:

19 Q. You say there was documentary -- I'm
20 sorry -- computer proof that this system was
21 inhibited; is that correct?

22 MR. BICKFORD:

23 Mr. Schonekas, his testimony wasn't
24 that there was computer proof. His testimony
25 was that there was a computer program available

ASSOCIATED COURT REPORTERS

1 that showed the inhibition of the general alarm.

2 That has been his testimony since this morning,

3 and his testimony is that the captain had access

4 to it.

5 BY MR. SCHONEKAS:

6 Q. And I'm trying to find out, sir, where

7 would the captain have seen this on April 20th,

8 or any time, that would have shown him that

9 there was an inhibition in the alarm system on

10 April 20th?

11 MR. SCHONEKAS:

12 Could we get it from the witness

13 and not --

14 MR. BICKFORD:

15 I'm not testifying for him.

16 BY MR. SCHONEKAS:

17 Q. Go ahead, sir.

18 A. He can look in the same place I can.

19 Any one of the four operator stations aboard, on
20 the bridge or the two in the ECR.

21 Q. Tell me where you would go to look at
22 that, sir. I'm not familiar with your computer
23 systems. Tell me where you would go to see
24 this.

25 A. I'd go to the general alarm page.

ASSOCIATED COURT REPORTERS

1 Q. All right. And if you went to the
2 general alarm page on -- This would be under
3 what subset of the --

4 A. Fire and gas.

5 Q. I'm sorry?

6 A. Fire and gas.

7 Q. Under fire and gas?

8 A. Correct.

9 Q. And that would show that there is an
10 override of the alarm on fire and gas on April
11 20th?

12 A. No. An inhibited.

13 Q. I'm sorry. An inhibited on fire and
14 gas?

15 A. Very distinct difference.

16 Q. All right. Now, it is your testimony,
17 is it, that you don't know that that system was
18 overridden in the shaker house or those others

19 areas? I'm sorry. Inhibited.

20 A. I don't know the conditions of the

21 sensors, the individual sensors on that exact

22 day, no.

23 Q. Now, sir, you also described for us the

24 condition of evacuating, correct? You recall

25 that? After the explosions.

ASSOCIATED COURT REPORTERS

1 A. Yes.

2 Q. And you described that one of the
3 lifeboats was at a precarious angle. You recall
4 that?

5 A. Life raft.

6 Q. Life raft. You remember that though,
7 that there was a bad angle?

8 A. Yes, there was.

9 Q. And that bad angle was proving extremely
10 difficult in getting one of the engine men into
11 the lifeboat; is that correct?

12 A. Yes, it was.

13 Q. And, in fact, prior to that time or
14 throughout this time you were very concerned
15 that you were going to be blown up; is that
16 right, sir?

17 A. We all were.

18 Q. And burned up; is that right, sir?

19 A. Yeah.

20 Q. And they were taking time trying to get

21 this injured guy into the lifeboat; is that

22 right?

23 A. Yes.

24 Q. In fact, you even entertained leaving on

25 your own in the lifeboat prior to all this

ASSOCIATED COURT REPORTERS

1 because of your concern for your own safety; is

2 that right, sir?

3 A. Yes, I did.

4 Q. Now, you also described the conversation

5 that was had in the bridge when you made your

6 way up there; is that correct?

7 A. Which conversation?

8 Q. The conversation you had with the

9 captain.

10 A. Yes.

11 Q. And, in fact, you described how you had

12 gotten low so that you could breathe; is that

13 correct?

14 A. Yes.

15 Q. And that was part of the training that

16 you received, right?

17 A. Yes.

18 Q. And you also described how you had tried

19 to get upwind of the explosion; is that right,

20 sir?

21 A. Yes.

22 Q. And you reason you knew that as well is

23 because of the training you received; is that

24 right, sir?

25 A. Common sense.

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1 Q. And when you got up there, an effort was
2 being made or a discussion was had about we need
3 to get power back for fire fighting. Do you
4 recall that?

5 A. Yes, I do.

6 Q. And the captain wanted to re-establish
7 power so that they could fight the fire and save
8 the ship; is that right?

9 A. Station keeping and fire fighting, yes.

10 Q. And station keeping meaning so that we
11 can have some control over this thing?

12 A. Correct.

13 Q. And you didn't have any complaint with
14 that; is that right, sir?

15 A. No, I didn't.

16 Q. And, in fact, after y'all -- Let's go to
17 the --

18 MR. BICKFORD:

19 Wait. Wait. Wait. Hold on,

20 please.

21 BY MR. SCHONEKAS:

22 Q. You want to say something, sir? Go

23 right ahead.

24 A. Yeah. On your last question you said I

25 had no complaint with that. I did have a

ASSOCIATED COURT REPORTERS

1 complaint with that and I voiced it --

2 Q. Which was what?

3 A. -- with the captain that we needed to
4 abandon ship immediately.

5 Q. You didn't want to try and fight that
6 fire. You just wanted to try to get the hell
7 out of there; is that right?

8 A. Yeah.

9 Q. But the captain didn't. The captain was
10 trying to save the ship; right?

11 A. Yes.

12 Q. And, in fact, at the same time you say
13 there were objects flying everywhere; is that
14 right?

15 A. Yes, there were.

16 Q. Heavy metal pieces?

17 A. I don't know what their composition was.

18 Q. Stuff that could kill you though, right?

19 A. I would assume so.

20 Q. Sir, you had spoken about the rubber
21 pieces that had come up in the mud. Do you
22 recall that?

23 A. Uh-huh (affirmative response).

24 Q. Were you aware that Mr. Roshto had
25 actually stopped work prior to this incident?

ASSOCIATED COURT REPORTERS

1 A. No, I was not.

2 Q. Did you not know that he got an award
3 for stopping the work out there one day?

4 A. No, I didn't.

5 Q. Did you -- Were you ever concerned that
6 if you attempted to exercise either your
7 obligation or your right to stop a dangerous
8 condition that you were going to be fired?

9 A. No, I didn't.

10 Q. In fact, it was just the opposite,
11 wasn't it, sir?

12 A. Yes, it was.

13 Q. In fact, there was a culture of safety
14 out there, was there not?

15 A. Yes, there was.

16 Q. That's all I have. Thank you. I'm
17 sorry. Just a few more things, sir. I want to
18 direct your --

19 CAPT NGUYEN:

20 I just want to make it clear in my
21 mind. Are you representing Mr. Kuchta or are
22 you representing Transocean?

23 MR. SCHONEKAS:

24 I am representing Captain Kuchta,
25 who is an employee of Transocean, Captain.

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1 CAPT NGUYEN:

2 Right. But I just want to make
3 sure that I understand where you're interests
4 lie because I mean I'm watching this
5 conversation here, I don't know where you're
6 going, but it seems to me that you're
7 challenging Mr. Williams about, you know, it
8 comes up, you know, the Transocean systems and
9 all that instead of try to validate some of
10 these things that have been said about the
11 captain. So I just want to make sure that my
12 mind is clear with what your interest is,
13 Transocean or --

14 MR. SCHONEKAS:

15 Let me -- let me --

16 CAPT NGUYEN:

17 I just want to make sure I
18 understand.

19 MR. SCHONEKAS:

20 Oh, no, sir. That's a fair

21 question. I'll explain to you, Captain.

22 CAPT NGUYEN:

23 Okay.

24 MR. SCHONEKAS:

25 My interests are that you're going

ASSOCIATED COURT REPORTERS

1 to try and visit upon my client inadequacies,
2 insufficiencies in terms of either manning,
3 training, and safety. And to the extent that
4 you level those criticisms at the company, and I
5 am the captain of that ship, you are laying that
6 at my feet as well, sir. So I feel an
7 obligation to address that. So that's where my
8 interests lie.

9 CAPT NGUYEN:

10 I just wanted to make sure. The
11 Coast Guard is --

12 MR. SCHONEKAS:

13 I didn't -- I'm sorry, sir. Go
14 ahead.

15 CAPT NGUYEN:

16 I understand. Captain Kuchta as a
17 Party in Interest, he has information that is of
18 interest to this investigation, and as we obtain

19 this information, you know, if there is a
20 detection that there was wrongdoing, we pass it
21 on to some other folks. The information that we
22 gather has to deal with casualty. I just want
23 to understand, you know, we have a
24 representative for Transocean and you are a
25 representative for Captain Kuchta. I just want

ASSOCIATED COURT REPORTERS

1 to make sure it's clear in my mind where you're
2 going with all these questions. Are you
3 defending Transocean or are you representing
4 Captain Kuchta? That's all.

5 MR. SCHONEKAS:

6 I am representing Captain Kuchta.

7 CAPT NGUYEN:

8 Yes, sir.

9 MR. SCHONEKAS:

10 And to the extent that you're
11 suggesting or anyone would suggest that there's
12 some inadequacy in terms of the captain's
13 conduct or his training or his failure to do
14 anything about these procedures, sir, I feel an
15 obligation to respond to that, and if I believe
16 that an erroneous impression has been created
17 with respect to conditions or safety for which
18 my client is the captain, then I feel duty bound

19 to address that, Captain.

20 CAPT NGUYEN:

21 All right. I just want to make

22 sure we were clear and that we stay within the

23 boundaries.

24 BY MR. SCHONEKAS:

25 Q. Sir, the BP lawyer had shown you an

ASSOCIATED COURT REPORTERS

1 audit of various problems that the audit went
2 over with this boat. Do you recall those
3 questions, sir?

4 A. I do.

5 Q. Was there anything in any of the areas
6 that -- I'm sorry -- Mr. Godfrey went over that
7 you believe were not addressed and posed a risk
8 to this vessel within your area?

9 A. Within my area, no.

10 Q. Thank you, sir. That's all I have.

11 CAPT NGUYEN:

12 Thank you, sir.

13 I would ask you if you have any
14 information that you can provide to the Board at
15 this time, sir?

16 MR. PENTON:

17 I guess I was skipped. Ronnie
18 Penton.

19 CAPT NGUYEN:

20 I missed it again. I'm sorry.

21 UNIDENTIFIED SPEAKER:

22 He's here this time, Captain.

23 CAPT NGUYEN:

24 Usually you only have one, so --

25 E X A M I N A T I O N

ASSOCIATED COURT REPORTERS

1 BY MR. PENTON:

2 Q. Ronnie Penton, P-E-N-T-O-N. Mike, how
3 long were you on the DEEPWATER HORIZON the day
4 that she exploded?

5 A. I had been out there eight or nine days.

6 Q. How long had you been on her from the
7 very beginning of your employment with
8 Transocean?

9 A. Little less than three years.

10 Q. And for every single solitary day that
11 you were on that rig, who was the contractor
12 aboard that rig that had contracted with
13 Transocean?

14 A. That would be BP.

15 Q. And for every single solitary day and
16 for two towers a day and for every hitch, was
17 there a BP representative or company man there
18 during the operations?

19 A. Yes.

20 Q. And please explain to the Board the role

21 of BP in the day-to-day and the hour-to-hour

22 operation of that rig briefly.

23 A. They were the guys that cut the check.

24 They had operations that they would send down,

25 this is what has to happen today, going to

ASSOCIATED COURT REPORTERS

1 happen in this time frame, make it happen.

2 That's --

3 Q. In the day-to-day operation in your job
4 in electronics was BP ever involved in that
5 process while you were going your repairs?

6 A. Yes.

7 Q. And specifically we've talked about
8 several things. Let's talk first about the
9 A-chair. Was there ever a time during the
10 period that there was a problem with the A-chair
11 that a BP company man was actually in the
12 presence of the Transocean people, including
13 yourself, while you were troubleshooting this
14 A-chair?

15 A. Yes.

16 Q. And were they absolutely aware of the
17 problem in the A-chair with the driller or the
18 assistant driller?

19 A. Yes, they were.

20 Q. Were they aware of the lack and the --

21 MR. GODFREY:

22 Objection.

23 BY MR. PENTON:

24 Q. -- inadequacy of the information?

25 MR. GODFREY:

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1 Objection as to his foundation. He
2 can say what he saw, what he heard, but when he
3 asks this general question was BP aware, this
4 witness has no basis to say anything about BP's
5 general awareness. He can testify about what he
6 saw, what he heard, and that's it.

7 MR. PENTON:

8 I'll rephrase. I'll rephrase.

9 MR. GODFREY:

10 Thank you, sir.

11 BY MR. PENTON:

12 Q. Was the BP company man aware, being
13 present there with you with other Transocean
14 people, of the problems with the A-chair?

15 MR. GODFREY:

16 Object to the word aware. I object
17 to the word aware. He can ask him what he saw,
18 what he heard, but aware implies a state of

19 mind, to my understanding, which this witness

20 cannot answer.

21 CAPT NGUYEN:

22 Okay, I agree, Mr. Godfrey. Mr.

23 Williams --

24 BY MR. PENTON:

25 Q. Did the BP company man hear the

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1 conversations going on and contribute to those
2 conversations on the problems with the drill
3 chair?

4 A. Yes, they did.

5 Q. Did they discuss the hazards of
6 operating and continue to operate with the drill
7 chair giving erroneous information or just
8 shutting down?

9 A. Yes, they did.

10 Q. At any time did BP's company man ever
11 try to shut down this rig from its operations in
12 drilling and exploration because of the problems
13 and the ongoing problems with that drill chair?

14 MR. GODFREY:

15 Objection. Limited to his
16 knowledge. He can't make a general statement
17 about the overall rig.

18 THE WITNESS:

19 No, not that I'm aware of.

20 BY MR. PENTON:

21 Q. Did you ever hear a BP company man tell

22 Transocean, "Shut this rig down, and stop our

23 drilling and exploration because this A-chair

24 doesn't work"?

25 A. No, I didn't.

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1 Q. There's an issue about the annular
2 rubber, and Mr. Mark Hay I believe was there and
3 said, "Don't worry about it," is that correct?

4 A. Yes, it is.

5 Q. And you've already deferred to Mark in
6 terms of his knowledge about the annular rubber;
7 is that correct?

8 A. Yes.

9 Q. With respect to the pressure or mini
10 purge system on the BOP -- Remember that
11 testimony?

12 A. I do.

13 Q. And do you remember Mark not letting you
14 adjust the system so that it could stay on
15 automatic?

16 A. Yes, I do.

17 Q. Let me ask you this. Was there a BP
18 company man in that drill shack that heard that

19 conversation?

20 A. There was.

21 Q. And who was that BP company man?

22 A. That would be Mr. Vidrine.

23 Q. And did Mr. Vidrine say to you or to Mr.

24 Mark Hay, "We've got to shut this down and do

25 these repairs"?

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1 A. No, he did not.

2 Q. What did Mr. Vidrine ask you?

3 A. He asked me what I thought the problem

4 was and could I fix it.

5 Q. And what did you tell him?

6 A. I told him that I had parts on order but

7 I could make it run in automatic as long as they

8 kept the purge in the drill shack like they were

9 supposed to.

10 Q. At any time did Mr. Vidrine or any other

11 company man shut the rig down or try to shut the

12 rig down because of the pressure system in the

13 drill shack?

14 A. Not that I know of.

15 Q. Is that a safety issue if there is a

16 negative pressure in the drill shack?

17 A. Yes, it is.

18 Q. Why is it a safety issue?

19 A. Because the rig floor is considered an
20 intrinsically safe area, but the drill shack is
21 not. Anything inside the drill shack can create
22 a spark which would ignite a combustible gas.
23 Q. But BP never moved to shut it down, the
24 operations down, because of the problem in the
25 dog house with this pressure system, did it?

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1 A. No.

2 Q. You've heard and been asked numerous

3 questions about various marine surveys,

4 registered audits, Coast Guard inspections.

5 There's a litany of those. Do you remember

6 those?

7 A. Yes, sir.

8 Q. On every single occasion that these

9 inspections and condition surveys and audits

10 being conducted was BP on the rig?

11 A. Yes, they were.

12 Q. Now, specifically, do you know if the BP

13 company man ever went to the Coast Guard to tell

14 the Coast Guard when they came on board about

15 any of the maintenance items that that rig had?

16 A. I don't know.

17 Q. How about for any of the other auditors,

18 did you ever know that BP ever went and reported

19 those maintenance items to them?

20 A. I don't know.

21 Q. Okay. Very specifically, BP performed

22 their own audit, did they not, in September

23 2009. You've been asked about that, correct?

24 A. Yes.

25 Q. And, in fact, the lawyer for BP went

ASSOCIATED COURT REPORTERS

1 over several items of concern in terms of
2 preventive maintenance as well as maintenance
3 that could be deferred, various levels of
4 maintenance; is that correct?

5 A. Yes, it is.

6 Q. Do you know of your own personal
7 knowledge whether or not BP ever requested a
8 safety standdown or shutdown of the drilling and
9 exploration process as a result of those
10 maintenance items?

11 A. No, I do not.

12 Q. Very specifically, were you on board
13 when the BP representatives were inspecting the
14 bridge control panels?

15 A. No, I was not.

16 Q. Were you on the rig during the time that
17 they were inspecting the systems aboard the rig?

18 A. Parts of it.

19 Q. In September 2009 is when --

20 A. Part of it, yes.

21 Q. And do you have personal knowledge

22 whether or not they inspected any of the fire

23 and gas alarm systems?

24 A. I do.

25 Q. And after they inspected those systems,

ASSOCIATED COURT REPORTERS

1 had you ever heard or did -- do you have
2 personal knowledge whether BP ever made any
3 comment to any person to go in and check the
4 alarms, including the general alarms, to make
5 sure that all sensors and alarms were not
6 inhibited?

7 A. Would you repeat the question?

8 Q. Okay. Did BP, to your personal
9 knowledge, ever report any inhibited alarms on
10 the general alarm?

11 A. No.

12 Q. Now, when you found out about the
13 general alarm being inhibited, that was not a
14 maintenance item, was it?

15 A. No, it wasn't.

16 Q. In fact, you immediately reported that
17 to your supervisors on the rig, didn't you?

18 A. Yes, sir, I did.

19 Q. And was there more than one discussion
20 with your supervisors and your counterparts
21 about this general alarm?

22 A. Yes, there were.

23 Q. And your testimony is, and you stand by
24 that today, you were informed by your
25 supervisors that that was orders to keep it

ASSOCIATED COURT REPORTERS

1 inhibited; is that correct?

2 A. Yes, it is.

3 Q. Transocean, to your knowledge did ever

4 Transocean shut down the drilling and

5 exploration operations as a result of

6 maintenance that was required other than that

7 which shut them down automatically?

8 A. No.

9 Q. Let's talk about the ESD system a minute

10 just so that we're crystal clear as to what

11 really happens. When the sensors sense gas,

12 what exactly happens electromechanically and

13 what is the result of the sensing of that gas in

14 the high high level mode?

15 A. When two of those sensors go high high,

16 a signal is sent to the BS100, which is the fire

17 and gas computer. From there it is sent to

18 SIMRAD. SIMRAD processes the data, sends out a

19 signal based on what it thinks it should do. If
20 you get two of these sensors, it's going to trip
21 the ESDs for that particular zone, whatever zone
22 is affected by the sensors that are being
23 detected in a high high state. All that's going
24 to happen as quick as you can snap your fingers.
25 Q. And so if you're concerned with the

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1 ventilation or the air dampening, fire dampening
2 systems that are found in the engine rooms, what
3 mechanically happens when the ESD trips to those
4 fire dampers?

5 A. Those fire dampers I believe are air
6 controlled. They were air solenoids. There
7 would be a signal that would sent out to that
8 solenoid to fire. When it would fire, they
9 automatically failsafe closed, which is
10 basically break the circuit. Once you break the
11 circuit, a big long spring retracts the actuator
12 and closes the damper.

13 Q. But that's the automated system; is that
14 correct?

15 A. Yes, it is.

16 Q. But we haven't talked about the manual
17 system, have we not?

18 A. No, we haven't.

19 Q. The emergency shutdown systems are found

20 on how many panels on that rig?

21 A. There's three ESD panels.

22 Q. And where are the three ESD panels

23 located?

24 A. There's one in the CCR, one in the ECR

25 and one in the dog house.

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1 Q. And so can the general alarm and the
2 ESDs be activated manually?

3 A. Yes, they can.

4 Q. And so if -- You have a subsea operator,
5 correct?

6 A. Yes, we do.

7 Q. Sitting at the panel?

8 A. Presumably he'd be at the BOP panel.

9 Q. Okay. So which operators would be at
10 the panels?

11 A. The ESD panels would not be manned.

12 Q. Okay. But the panels are in the control
13 room; correct --

14 A. Correct.

15 Q. Of the bridge, correct?

16 A. The place that is.

17 Q. So anyone on the bridge, correct?

18 A. Yes.

19 Q. Could go and simply activate the ESD

20 system manually; correct?

21 A. Correct.

22 Q. And what would happen if they do that?

23 A. Fire dampers would close. Power would

24 trip to all the machinery in that space.

25 Q. So inhibiting the general alarm inhibits

ASSOCIATED COURT REPORTERS

1 the automated function of it, not the manual
2 function of it?

3 A. Correct.

4 Q. Thank you, sir. That's all I have.

5 E X A M I N A T I O N

6 BY CAPT NGUYEN:

7 Q. Mr. Williams, why bother with the
8 expense to have automatic system for --

9 A. I can't answer that.

10 Q. Okay. Is it a requirement?

11 A. I don't know.

12 Q. Okay.

13 E X A M I N A T I O N

14 BY MR. MATHEWS:

15 Q. On Sunday, before the incident, was
16 there an abandon drill?

17 A. Yes, there was.

18 Q. Did they sound the general alarm?

19 A. Yes, they did.

20 Q. Is that taken out of the inhibited state

21 for that process or --

22 A. They simply pressed a button, the manual

23 button on the back.

24 Q. And after that alarm remains in the

25 enabled state?

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1 A. Yes.

2 Q. Thank you.

3 EXAMINATION

4 BY LT BUTTS:

5 Q. And, Mr. Williams, that's an important
6 point to point out there. On the -- In the
7 bridge -- We have a diagram over here. Those
8 inhibitor buttons, are they on a console?

9 A. Yes.

10 Q. And is that console pretty much just
11 computer screen, computer screen, computer
12 screen?

13 A. Yes, it is.

14 Q. And who sits at that console?

15 A. Senior DPO or a DPO.

16 Q. So they would know at any time
17 twenty-four and seven what the state of those
18 systems are?

19 A. Correct.

20 Q. Now, in an emergency, everyone it seems

21 like rushes to the bridge. Could it be known by

22 anyone that was on the bridge the exact time and

23 location or the status of any of those

24 controllers?

25 A. Anyone with the emergency station of ECR

ASSOCIATED COURT REPORTERS

1 or bridge should know how to interpret what's on
2 the screen.

3 Q. Because I think we heard the chief
4 engineer say he went to the bridge, he looked at
5 the monitor, and the engines were not on line.
6 Can someone do the same thing for these
7 shutdowns, these ESDs?

8 A. Yes, they can.

9 Q. Okay. So anyone that's looking at a
10 monitor can figure it out?

11 A. Yes, they can, if they understand how to
12 navigate.

13 Q. Okay. Okay. One final question about
14 the fire pumps. Are there two fire pumps on
15 board?

16 A. Yes, there are.

17 Q. One's a main and one's an emergency?

18 A. One's port and one's starboard.

19 Q. Okay. Are they electric?

20 A. Yes.

21 Q. They run on electricity?

22 A. Yes, they do.

23 Q. The standby generator, are one of those

24 fire pumps on that bus, to your knowledge?

25 A. I don't know. To my knowledge, I don't

ASSOCIATED COURT REPORTERS

1 know.

2 Q. Okay. When someone inhibits, for
3 example, fire and gas, the alarm, visual and
4 audible, correct?

5 A. Correct.

6 Q. When they inhibit it, part or both the
7 visual and the audible disconnected, they will
8 not sound, in other words, or will not
9 illuminate?

10 MR. BICKFORD:

11 The general alarm? Are you
12 saying --

13 BY LT BUTTS:

14 Q. On the general alarm, for example, when
15 fire and gas is detected, the general alarm goes
16 off, the bell is ringing in the accommodations,
17 let's say.

18 A. Correct. Rig wide.

19 Q. Okay. Rig wide. If it is in the
20 enabled state, that alarm, that ringing tone
21 will not be heard; is that correct?

22 A. Enabled, yes.

23 Q. Okay. Now, in the spaces that are above
24 a certain decibel level there's a -- is there a
25 flashing light to indicate an alarm?

ASSOCIATED COURT REPORTERS

1 A. Yes, there is.

2 Q. If the alarm is not audible, will the
3 alarm be visual or are they both taken out?

4 A. They're both taken out.

5 Q. Okay. Good enough. Thanks.

6 E X A M I N A T I O N

7 BY MR. DYKES:

8 Q. Mr. Williams, Mr. Penton asked you a
9 question just a few moments ago about the purge
10 system again, and I want to make sure that I
11 fully understand. There's a purge system for
12 the driller shack?

13 A. Correct.

14 Q. And then there's a purge system in the
15 BOP panel?

16 A. Correct.

17 Q. Okay. The purge system in the BOP panel
18 was the one that was having problems?

19 A. Yes.

20 Q. Was there a purge system problem for the

21 shack, for the driller shack itself?

22 A. Not at the time of the explosion that

23 I'm aware of.

24 Q. Okay. Any time that you -- In your --

25 A. Yes.

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1 Q. -- experience there was a problem with
2 the purge system for the drillers -- driller
3 shack?

4 A. There was the week before the exhaust
5 port was plugged with mud, and it was over
6 pressuring, and that made the doors pop. When
7 you hit the handle, they would shoot out real
8 fast.

9 Q. Okay.

10 A. We simply unplugged the hole and put it
11 back in service.

12 Q. Okay. Thank you.

13 EXAMINATION

14 BY CAPT NGUYEN:

15 Q. Mr. Williams, just I want to confirm
16 something in your statement to the Coast Guard,
17 written statement. You talked about you heard
18 multiple alarms, but from what I understand,

19 none of those alarms were the general alarm,

20 right?

21 A. Correct. They were all local panel

22 alarms.

23 Q. Okay. So a general alarm, whether it's

24 audible or visual, it was not --

25 A. I never saw a general alarm or heard a

ASSOCIATED COURT REPORTERS

1 general alarm.

2 Q. Okay.

3 MR. BICKFORD:

4 And just for the record, Captain,
5 the statements to the Coast Guard and to
6 Transocean were made immediately upon Mr.
7 Williams' transport from the hospital to a hotel
8 out here in Kenner immediately following the
9 accident.

10 CAPT NGUYEN:

11 Yes, sir, I understand.

12 MR. McCARROLL:

13 I have one follow-up, Captain.

14 CAPT NGUYEN:

15 Yes, sir.

16 E X A M I N A T I O N

17 BY MR. McCARROLL:

18 Q. Mr. Williams, you had a lot of issues

19 with fire doors, they kept blowin in on you?

20 A. Yeah, they were.

21 Q. You have any final comments on the fire

22 doors as far as the location --

23 A. I sure do.

24 Q. -- recommendations --

25 A. I sure do. I'm glad you asked. In my

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1 opinion, there should not be a fire door between
2 any accommodations of any vessel and a motor
3 control room or a pump room, a sack room. Any
4 type of machinery space that leads to
5 accommodations should have a water-tight door
6 and not a fire door. That is my opinion. That
7 the second explosion went through the pump
8 room -- or I mean through the sack room and blew
9 in the fire door leading to the accommodations
10 on the second deck, and there were -- Buddy
11 Trahan and Wyman Wheeler were both severely
12 injured and they were in that space. They were
13 in that first hallway where that fire door was
14 located.

15 On the opposite side of the
16 accommodations where there was a water-tight
17 door that broke between the machinery spaces and
18 the accommodations, the water-tight door

19 integrity held.

20 So it's my opinion that any time -- I

21 mean you're not going to be safe out there

22 everywhere from everything, but at least if

23 you're asleep, you don't have your hard hat on,

24 you don't have your gloves on, you don't have

25 your steel-toed boots on, you're way more

ASSOCIATED COURT REPORTERS

1 vulnerable asleep in your bed than you are at
2 work.

3 Q. Thank you for your comments.

4 EXAMINATION

5 BY LT BUTTS:

6 Q. Mr. Williams, thank you. So the fire
7 doors that you're talking about, are they the
8 same fire doors that protect the ECR room, ET
9 room?

10 A. Yes, they are.

11 Q. Are they the same doors that are used in
12 between each individual engine compartment?

13 A. Yes, they are.

14 Q. The water-tight door you're talking
15 about, quick acting water-tight door, several
16 different hinges?

17 A. You got the dog down style with the
18 wheel.

19 Q. Okay. Blast doors, blast walls

20 outfitted on the rig?

21 A. I don't know if they were blast doors.

22 All I know is they held --

23 Q. Okay.

24 A. -- when the other doors didn't.

25 Q. Okay. The fire doors, as I understand

ASSOCIATED COURT REPORTERS

1 it, are A60. Are you familiar with that rating?

2 A. I don't know.

3 Q. All right. Thank you.

4 A. I just was told they were fire rated
5 doors, and they had a fiberglass seal around
6 them to help prevent fire from going from one
7 space to the other.

8 Q. Yeah.

9 CAPT NGUYEN:

10 Flag state.

11 MR. LINSIN:

12 Thank you, Captain.

13 E X A M I N A T I O N

14 BY MR. LINSIN:

15 Q. Very quickly, Mr. Williams, just one
16 clarification, if I may, on the inhibited alarm
17 situation. When the alarms were in this
18 inhibited state, if there were two alarms that

19 were activated in a single zone, would that stop

20 the air vents from closing in that space?

21 A. Yes, it would.

22 Q. So the air vent -- I thought I

23 understood you to say that the -- what was

24 inhibited was the audio and the visual

25 functioning of the alarm.

ASSOCIATED COURT REPORTERS

1 A. And ESDs.

2 Q. And the ESDs. So you're saying the air
3 vents would not close either; is that correct?

4 A. No, they wouldn't.

5 Q. All right.

6 MR. LINSIN:

7 Thank you, Captain. That's it.

8 CAPT NGUYEN:

9 Mr. Williams, are there any
10 questions that we haven't asked you or any other
11 information you would provide to the Board at
12 this time?

13 THE WITNESS:

14 I did want to make one statement,
15 and it's an opinionated statement, of course.

16 What happened out there to us
17 should never happen again, obviously. In my
18 mind, three things happened. The well kicked,

19 safety systems were inhibited or failed, and men
20 lost their lives. Somehow or another we've got
21 to get to the bottom of it.

22 That's all I have to say.

23 CAPT NGUYEN:

24 Yes, sir. We really appreciate
25 that you've been here to testify. If we need

ASSOCIATED COURT REPORTERS

1 you to come back in the future, will you make
2 yourself available, sir?

3 THE WITNESS:

4 Yes, sir, I will.

5 CAPT NGUYEN:

6 Yes, sir. Thank you. You're
7 dismissed.

8 THE WITNESS:

9 Thank you.

10 MR. BICKFORD:

11 Thank you, Captain.

12 CAPT NGUYEN:

13 We'll take a break and we will
14 reconvene at 1:45. Just an admin note here. We
15 will defer Mr. Tabler to the next -- both Mr.
16 Tabler and Mr. Sadler to the next session. So
17 this afternoon the next witness will be
18 Mr. Tyrone Benton and following him would be

19 Dr. John R. Smith with LSU.

20 (WHEREUPON, A LUNCHEON RECESS WAS TAKEN)

21 CAPT NGUYEN:

22 We're now on Mr. Tyrone Benton with

23 Oceaneering.

24 Mr. Benton, please rise.

25 (Witness Complies)

ASSOCIATED COURT REPORTERS

1 TYRONE BENTON,
2 after having been first duly sworn in the cause,
3 testified as follows:

4 EXAMINATION

5 BY MR. MATHEWS:

6 Q. Mr. Benton, could you please identify
7 your counsel, please.

8 A. Yes.

9 MR. McELWEE:

10 I'm Dennis McElwee, spelled
11 M-C-E-L-W-E-E.

12 MR. MATHEWS:

13 Thank you, sir.

14 BY MR. MATHEWS:

15 Q. Mr. Benton, for the record, could you
16 please state your full name and spell your last.

17 A. Tyrone Lecount Benton. That's

18 B-E-N-T-O-N.

19 Q. By whom are you employed, sir?

20 A. With Oceaneering.

21 Q. And what is your current position with

22 Oceaneering?

23 A. I'm an ROV technician.

24 Q. On the DEEPWATER HORIZON, what is

25 Oceaneering's responsibility?

ASSOCIATED COURT REPORTERS

1 A. We're there to help monitor. We do
2 surveillance of the well stack, BOP, and do
3 daily updates to make sure that it's running
4 like it should.

5 Q. And HOW long have you been in the
6 position of ROV tech, sir?

7 A. Just a little over three years. Three
8 and half years now.

9 Q. Have all of those been on the DEEPWATER
10 HORIZON?

11 A. No, sir.

12 Q. What other rigs did you work on?

13 A. I worked on --

14 Q. Or production platforms. Excuse me.

15 Whatever.

16 A. -- ENSCO 7500.

17 Q. Can you -- You just went over a list of
18 things that Oceaneering does on the DEEPWATER

19 HORIZON. Would you please give me a highlight

20 overview of what you had as your

21 responsibilities?

22 A. My job out there on the electrical ET,

23 I basically serviced the ROV to make sure that

24 it runs properly, and I'm also the pilot and

25 navigator whenever we dive.

ASSOCIATED COURT REPORTERS

1 Q. Do you have any role or responsibilities
2 in inspecting or maintaining the BOP stack?

3 A. What type of jobs we do on the BOP is we
4 inject glycol whenever need be. If we unlatch
5 from the well and need to inject some methanol,
6 we also do that. We lay down the beacons to
7 keep the rig located in a specific area. Those
8 are the type of jobs we do.

9 Q. Okay. Thank you. How long were you on
10 the hitch prior to April 20th? When did you
11 arrive?

12 A. I arrived Monday, April 19.

13 Q. Can you give me a -- To the best of your
14 recollection, what occurred on April 20, sir,
15 from the moment you woke up until the time you
16 departed.

17 A. That day we were just -- It was pretty
18 much a normal day for me and my crew. We were

19 trying to get an understanding how long we were
20 going to be on that well so that we could go and
21 pick up the beacons. That was going to be one
22 of our next big tasks that we do.

23 My supervisor at that time, he normally
24 does the interaction with Transocean and BP.

25 Q. And who was your supervisor?

ASSOCIATED COURT REPORTERS

1 A. At that time it was Darren Costello.

2 Q. Darren Costello?

3 A. Yes, sir.

4 Q. Thank you. Can you just -- I know

5 you've been in the media for saying you had

6 identified some problems with the BOP stack; is

7 that correct, sir? From the ROV position?

8 A. Yes, sir. From my point of view, yes,

9 sir.

10 Q. And can you please elaborate on what you

11 saw?

12 A. I'll probably say a month or two before

13 the incident we did see a leak coming from the

14 BOP.

15 Q. Do you know where it was coming from on

16 the BOP, sir?

17 A. I don't know the -- the technical term,

18 but it was coming from a J -- a J fitting right

19 above the main panel.

20 Q. And was it a -- Can you best guess a

21 flow rate? I mean was it a gusher?

22 A. It wasn't a very big flow rate. There

23 was also another little small flow rate coming

24 from the panel itself. And we did notify

25 Transocean, their --

ASSOCIATED COURT REPORTERS

1 Q. And when you say we, who is we?

2 A. The crew. The crew.

3 Q. The Oceaneering crew?

4 A. Oceaneering crew, yes, sir.

5 Q. And you notified who with Transocean?

6 A. The senior subsea supervisor was on at
7 the time.

8 Q. Do you know who that is? Mr. Mark Hay
9 maybe?

10 A. I don't know Owen's last name.

11 Q. Owen McWhorter?

12 A. I don't know his last name, but he was
13 the senior subsea supervisor.

14 Q. Do you think this occurred in between
15 February 24 and possibly March 13?

16 A. Yes, sir.

17 Q. And what was the message back from the
18 individuals that -- When you said we, the crew

19 of Oceaneering, met with Transocean to discuss
20 this leak, what was the message that was relayed
21 back to you?

22 A. It really wasn't relayed back to me.

23 Just the pilot. My senior -- well, my
24 supervisor normally handles talking with
25 Transocean and BP.

ASSOCIATED COURT REPORTERS

1 Q. Okay. Did you discuss any of this with
2 Mr. Lee Lambert?

3 A. With Lee Lambert?

4 Q. Yes, sir. With BP. Was there any
5 problems that you discussed with Lee Lambert
6 concerning the problems?

7 A. Personally me, no, sir.

8 Q. Did you ever discuss any of this with
9 Mr. Christopher Pleasant with Transocean?

10 A. I know he was one of the subsea
11 engineers. I did not know that we did a COD on
12 that particular pod.

13 Q. Had you ever seen any leaks prior to
14 that, or was this just a once in three years
15 being out there event?

16 A. Yeah. This is the first time I had ever
17 seen a leak.

18 Q. Did Oceaneering voice any concerns to

19 Transocean to indicate that there was a problem
20 with the BOP, or did y'all rely on Transocean's
21 expertise?

22 A. Yeah, we did notify Transocean. That's
23 our very first thing we have to do.

24 Q. Who else from Oceaneering was on the
25 rig, sir?

ASSOCIATED COURT REPORTERS

1 A. That night Darren Costello and Frank
2 Ireland.

3 Q. Is that the normal gentlemen that you
4 worked with, sir?

5 A. Frank, he just came out to help out on
6 that particular rig, but he's not normally part
7 of the crew. We were going to make him become
8 part of the crew that hitch.

9 Q. Okay. At any time did Oceaneering make
10 any modifications to the BOP stack while you
11 were out there?

12 A. No, sir.

13 Q. Did y'all ever add any ROV panels to the
14 lower portion of the BOP stack?

15 A. No, sir.

16 Q. Did it ever occur when you were not
17 there and made aware of it?

18 A. Not that I'm aware of.

19 Q. Would that be something that falls under
20 your job responsibilities?

21 A. Yes, sir.

22 Q. I believe in your written statement you
23 had indicated that you heard some alarms; is
24 that correct, sir --

25 A. Yes.

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1 Q. -- prior to the explosion. Can you
2 inform me what those alarms were?

3 A. During the explosion I just heard -- I
4 don't know if it came over the intercom or if
5 somebody just screamed that "This is not a
6 drill. This is not a drill."

7 Q. So it was an individual, not an audio
8 alarm that was computerized, it was an
9 individual possibly saying "Fire, fire" --

10 A. Yeah.

11 Q. -- "Evacuate" or --

12 A. Right. Exactly. Like I said, I just
13 don't know if it came or the intercom, but I did
14 hear somebody say, "This is not a drill."

15 Q. And where were you at, sir, at the time
16 of the explosion?

17 A. Inside my living quarters.

18 Q. Did you have any audio or visual general

19 alarm?

20 A. No. It was completely dark.

21 Q. Are you familiar with the general alarm

22 that gets activated on some days for muster

23 drills?

24 A. Yes, sir.

25 Q. Did you hear that alarm prior?

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1 A. No, sir, I didn't. All I heard was,

2 "This is not a drill."

3 Q. Did you participate in the MODU spec
4 audit that was performed on the DEEPWATER
5 HORIZON on April 1st through April 14th?

6 A. No, sir. I was off tower.

7 Q. I'm going to move on to ROV hot stab
8 capabilities. Are you familiar with the term
9 hot stab, sir?

10 A. Yes, sir.

11 Q. Are you familiar with the actual ROV
12 potential on the DEEPWATER HORIZON, like what is
13 its potential flow rate to activate a hot stab,
14 how many gallons per minute?

15 A. I can't recall the precise gallons per
16 minute. We have a little chart that we normally
17 use to bump our flow rate up. Normally a
18 supervisor will control that.

19 Q. Specifically which ROV was it?

20 A. It was one of Con Emag.

21 Q. EMag?

22 A. Yes, sir. That's an all electrical sub.

23 Q. How often did you test or inspect the

24 hot stab capability of that ROV, sir?

25 A. We have a maintenance program called

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1 GAMA, and it would basically tell us when we
2 have to check these particular tooling
3 equipment. It's done like a monthly --

4 Q. Monthly. Was there ever any issues
5 identified with the ability to hot stab and
6 effectively shut in a well with an ROV?

7 A. Not of my recollection. We used a hot
8 stab quite often to inject glycol, and it worked
9 with no problem.

10 Q. Were you involved in the intervention of
11 the DEEPWATER HORIZON?

12 A. What do you mean?

13 Q. Were you involved with any ROV
14 operations postmortem with ROV operations to
15 shut in the well, to apply ROV to identify where
16 the rig is or where the riser is?

17 A. No, sir.

18 Q. Was Oceaneering involved in that?

19 A. I believe so.

20 Q. Have you been back to work, sir?

21 A. No, I haven't.

22 Q. So you wouldn't have been made aware of

23 any of the ROV capability issues during the

24 intervention?

25 A. No, sir.

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1 Q. Do you know if a well is flowing if an
2 ROV has enough capacity to actually shut in the
3 BOP stack?

4 A. I'm not too sure.

5 Q. Thank you, sir. I have no other
6 questions.

7 A. Thank you.

8 MR. McCARROLL:

9 No questions at this time. Thank
10 you.

11 E X A M I N A T I O N

12 BY MR. DYKES:

13 Q. What is the maximum output of the pump
14 on the ROV as far as hot stab capability?

15 A. I believe on that system it's 2900.

16 Q. 2900 PSI?

17 A. Yes, sir.

18 Q. What does that equate to in flow rate

19 gallons per minute?

20 A. I don't know.

21 Q. You don't know what the maximum flow

22 rate in gallons per minute is on the ROV?

23 A. Well, I'm an electrical engineer. I

24 handle the electrical portion. We have an MP

25 that handles the hydraulic portion.

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1 Q. Okay. Thank you.

2 CAPT NGUYEN:

3 Flag state?

4 MR. LINSIN:

5 No questions. Thank you, Captain.

6 CAPT NGUYEN:

7 Michael Williams?

8 MR. BICKFORD:

9 No questions, Captain.

10 CAPT NGUYEN:

11 Stephen Bertone?

12 MR. LONDON:

13 No questions. Thank you, sir.

14 CAPT NGUYEN:

15 Patrick O'Bryan(No Response)

16 CAPT NGUYEN:

17 Robert Kaluza?

18 (No response)

19 CAPT NGUYEN:

20 BP?

21 MR. GODFREY:

22 Captain, thank you, but no

23 questions at this time.

24 CAPT NGUYEN:

25 Transocean?

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1 MR. KOHNKE:

2 No questions. Thank you.

3 CAPT NGUYEN:

4 Anadarko, MOEX?

5 (No response)

6 CAPT NGUYEN:

7 Cameron?

8 MR. JONES:

9 No questions.

10 CAPT NGUYEN:

11 Halliburton.

12 MR. GODWIN:

13 No questions, Captain.

14 CAPT NGUYEN:

15 Weatherford.

16 MR. LEMOINE:

17 No questions, Captain.

18 CAPT NGUYEN:

19 M-I SWACO.

20 MR. EASON:

21 No, thank you.

22 CAPT NGUYEN:

23 Dril-Quip.

24 MR. KAPLAN:

25 No questions.

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1 CAPT NGUYEN:

2 Douglas Brown.

3 MR. GORDON:

4 No questions, Captain.

5 CAPT NGUYEN:

6 Thank you, sir. Captain Kuchta?

7 MR. SCHONEKAS:

8 No questions. Thank you, sir.

9 CAPT NGUYEN:

10 Jimmy Harrell.

11 MR. FANNING:

12 No questions. Thank you.

13 CAPT NGUYEN:

14 Thank you, sir.

15 Mr. Benton, are there any questions

16 we didn't ask you or any information you would

17 like to provide at this time?

18 THE WITNESS:

19 No, sir.

20 CAPT NGUYEN:

21 We appreciate it. Will you be free

22 to come back before the Board if we need you?

23 Will you make yourself available?

24 THE WITNESS:

25 Yes, sir.

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1 CAPT NGUYEN:

2 Thank you, sir. You are dismissed.

3 The Board will now call Dr. John

4 Smith.

5 Dr. Smith, please raise your right

6 hand.

7 (Witness complies)

8 DR. JOHN ROGER SMITH,

9 after having been first duly sworn in the cause,

10 testified as follows:

11 E X A M I N A T I O N

12 BY MR. MATHEWS:

13 Q. Dr. Smith, for the record, can you

14 please state your full name and spell your last.

15 A. John Roger Smith, S-M-I-T-H.

16 Q. I don't believe it's on. Try it again.

17 A. John Roger Smith, S-M-I-T-H.

18 Q. And who did you perform the contract

19 under, sir?

20 A. For the Minerals Management Service.

21 Q. And by whom are you employed, sir?

22 A. My full-time employment is with

23 Louisiana State University.

24 Q. And what position do you hold with them,

25 sir?

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1 A. Associate professor of petroleum
2 engineering.

3 Q. And can you please give us just a brief
4 background of your education, sir?

5 A. I have a Bachelor's Degree in electrical
6 engineering from U. T. Austin, and I have a
7 Master's and Ph.D Degrees in petroleum
8 engineering from LSU.

9 Q. Have you ever authored or participated
10 in studies related to drilling practices, sir?

11 A. Professional papers, yes. Training
12 exercises, yes.

13 Q. And how often? Do you recall your last
14 authored paper?

15 A. I co-authored two papers within the last
16 year.

17 Q. How long have you held the position of
18 associate professor at LSU?

19 A. Since 2004 probably.

20 Q. Can you just give us and the audience a

21 high-level discussion of what the purpose was of

22 the contract that you got through the MMS?

23 A. The purpose was to review the records

24 that I was provided for the last 24 hours of

25 operations, to identify any inconsistencies in

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1 those records, and specifically to look for
2 operations which might be unusual or outside the
3 norm or outside routine practice.

4 Q. And what records were you provided, sir?

5 A. I was provided a digital record of what
6 we would call drilling data, the time based
7 record, and I was provided a similar but very
8 sketchy record for the cementing unit. I was
9 provided the daily reports from BP and daily
10 reports from Transocean, and I was provided some
11 figures that were plots or trend data, graphs of
12 data versus time and data versus depth for the
13 well primarily for that last period.

14 Q. Just to make the audience aware, when
15 you said the digital record of what was going on
16 on the rig, can you please elaborate as to what
17 those logs actually captured?

18 A. The drilling rig typically has sensors

19 for a number of its functions for the data
20 collection purposes, and they generally record
21 things like pump pressures, pump stroke rates,
22 counts of pump rate. In this case, flow in and
23 flow out or pump rate in and return flow from
24 the well, pit levels, trip tank levels, block
25 position.

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1 What's notably not there is positions of
2 valves or positions of blowout preventer so it's
3 a -- it's measurements but it's no record of
4 commands or actions.

5 Q. Before we go into any discussions, is it
6 all right if we just try to set some guidance on
7 what a positive pressure test or a negative
8 pressure test is, sir?

9 A. We can sure give that a try.

10 Q. Go right ahead. Dive on in.

11 A. Okay. So on the -- During this period
12 there were both positive and negative pressure
13 tests of the casing and in some cases BOP
14 components, and what we've got displayed are not
15 intended to be accurate representations of the
16 well. They are more intended to be graphics
17 that are what I would call cartoons. A very --
18 The most common kind of test that we do to test

19 that anything that's going to contain pressure
20 on the well is intact, any pipe or valve or BOP
21 component or casing, is what we call a positive
22 pressure test. And So the idea is that the well
23 is essentially a container, a closed container,
24 and if we pump in -- In this case it's filled
25 with liquid. If -- and it's a big container.

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1 If we pump additional liquid into that
2 container, we increase the pressure that's
3 trapped inside the container.

4 In this case, I'm showing five barrels
5 at 2500 PSI. The actual kind of final positive
6 pressure test that was -- that was done on the
7 casing and the blind rims was to a little more
8 than 2500 PSI and the volume pumped was 6.5
9 barrels. Okay.

10 So once we pump that volume, if we close
11 the valve leading into that container, we expect
12 that system to just stay static and this
13 pressure not change or not change very much. In
14 the case of a casing pressure test, it will
15 often increase or decrease a little bit because
16 of temperature conditions changing in this fluid
17 that we pump fluid from the surface down into
18 the subsurface.

19 That pressure not changing is an
20 indication that there's not anything leaking.
21 If there was a leak, fluid would come out, the
22 pressure goes down. So a positive -- and then
23 this is sort of graphic of what a subsea well
24 like this might look like. We would pump down
25 the choker kill line underneath the closed blind

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1 shear rims, we would pressure up this volume of
2 mud that's in the well below the rims, and we're
3 applying pressure on top of a line leading down
4 to that point, but it's the same concept. We're
5 pressuring up this closed system. We close the
6 valve upstream of this pressure gauge, and we
7 expect the pressure gauge to not change or to
8 change very little. Evidence that it is truly a
9 closed system. The casings hold the pressure,
10 the blind rims will hold pressure, you can trust
11 them then to hold pressure later if you need to
12 as during a well control event.

13 When your test is completed, you open
14 the valve, you relieve some fluid, you let this
15 compressed liquid flow back. You expect to get
16 back the volume that you pumped, and you expect
17 that pressure to go back to zero. And you've
18 finished your test, you've got a secondary

19 indication that there were no leaks because you
20 get back about the same amount of fluid that you
21 pumped.

22 So there were a number of times during
23 this 24-hour period when there was some kind of
24 positive pressure test done on the casing, the
25 casing hanger, the seals in some cases, and the

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1 blind shear rims. In this one case they were
2 all successful. They were all acceptable tests
3 as best I can tell from the data.

4 When we have a system that we know that
5 we're going to reduce the pressure on that
6 system to some point less than its initial
7 pressure that it was created in, we call that a
8 negative test, and this is most often conducted
9 in a case where we want to be sure that our --
10 that our system, our well -- thinking of a well
11 maybe as a container again -- is going to hold
12 pressure from the outside and prevent that
13 pressure from coming in, and so it's common that
14 we would do this any time we're going to reduce
15 the hydrostatic pressure in the well below what
16 it was when we installed that system. In this
17 case, when we cemented the casing and installed
18 the casing hanging seals.

19 So the idea here is that we try to
20 replace some of the fluid -- and this is very
21 much over simplified versus what the real
22 geometry looks like, but the concepts are the
23 same. We replace some of that dense fluid with
24 a less dense fluid. That means that there's
25 going to be less what we call hydrostatic

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1 pressure in the well. We do it in a way where
2 we're holding pressure on top of it so that the
3 pressure in the well is not really changing
4 while we're changing the fluids. So that at the
5 beginning of the test we've got a low density
6 fluid filling part of the well, we've got some
7 positive pressure on top of that low density
8 fluid, and the pressures inside the system's
9 roughly the same as they were before we began
10 the test so that the pressure acting inward is
11 still opposed by pressure within the system.

12 All right. One of the -- This is,
13 again, an over simplification of a subsea well
14 sort of scenario in -- in the way that this was
15 described in the permit that was approved to do
16 this test. This could have been done in the
17 real well by replacing mud in a choker kill line
18 with sea water, at that point leaving mud in the

19 riser and, again, closing -- in this case
20 literally they closed an annular preventer
21 apparently, but if there were no pipe in the
22 well it could be done by closing the blind shear
23 rims again, and so we've replaced the dense high
24 pressure at the sea floor in the well due to the
25 mud with a lower pressure due to less dense sea

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1 water that by itself would give a lower pressure
2 at the sea floor, but we've got pressure on top
3 of it to keep the pressure relatively constant,
4 and then in this particular instance for the
5 DEEPWATER HORIZON, there was actually sea water
6 filled drill string in the well, and so there
7 was this sea water string actually extended down
8 into the well to some degree.

9 But the key point here is -- is what's
10 the purpose of the test and what do we expect
11 the test to look like. It's kind of just -- It
12 is literally just the opposite of the -- of the
13 positive test, but the well's going to act very
14 similar. We start out with pressure on the well
15 like we did at the end of the positive test. We
16 bleed that pressure off. We have to bleed off
17 some of this fluid that's trapped in the well,
18 that has been trapped in the well, to let the

19 pressure on top of that fluid relax. So when we
20 bleed fluid off, we expect only this fluid to
21 come back that was -- that was compressed, the
22 volume due to the compressability of the fluid
23 in the system. We expect -- In general, we're
24 doing it in a way where we drop the pressure to
25 zero, and we expect it to be -- So this would be

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1 like looking for leaks in the hull of your boat.

2 You've got water on the outside of the hull

3 putting pressure on the outside of the hull and

4 if your hull leaks, that water is going to

5 squirt on the inside, and you're going to see it

6 on the inside of the boat.

7 Well, so if our -- if our container or

8 our well is leaking, we're going to expect to

9 see additional fluid to continue to come out

10 more than just that fluid that would have come

11 out due to the compression, like it came out

12 after we did the casing test.

13 So it turns out that this pressure that

14 was on the MACONDO Well was -- I don't have the

15 exact numbers, but it was about 23, 2400 PSI

16 that was on top of the column of sea water.

17 You would have expected to get about

18 this -- It was really six and a half barrels

19 back that was seen from the positive test for
20 that same volume system at 2500 PSI bleeding it
21 down to zero. So you would have expected to see
22 this fluid come back and stop, and then you
23 would expect it to be kind of like a bottle of
24 coke that you opened up. You've let the
25 pressure off of it. There's nothing else coming

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1 into it. It just sits there. You know, if it's
2 a successful test, there's no more fluid coming
3 back. You've got a closed container. There's
4 no fluid leaking in through the hole of the
5 boat. There's no fluid leaking in through the
6 wall of the container or the casing. It just
7 sits there.

8 So if you have an unsuccessful test,
9 what you expect is that external pressure is
10 leaking through the wall of the system
11 somewhere. Through the wall of the casing, past
12 the casing hanger seals, up through the float
13 equipment in the casing. Somewhere there's a --
14 there's a leak from this external pressure into
15 the system. You expect to continue to see some
16 fluid coming back, and then if you close that
17 line that's the exit from this -- from the
18 system, what you expect to see is that the

19 pressure builds back up again. That pressure is
20 building back up because you need pressure to
21 equalize that pressure from the external leak to
22 balance it and stop it.

23 And so those are the kinds of
24 expectations that we have for a successful
25 negative test and an unsuccessful negative.

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1 Q. Thank you. That's a very good
2 explanation.

3 As we put some other stuff up, I want to
4 just go back over your background. I only went
5 over the fact that you were an associate
6 professor.

7 (DISCUSSION OFF THE RECORD)

8 BY MR. MATHEWS:

9 Q. Prior to being an associate professor,
10 did you have any other title at LSU?

11 A. I was an assistant professor, and before
12 that intermittently I was an instructor and a
13 grad student and a holder of a Graduate
14 Fellowship.

15 Q. And how long were you at LSU, sir?

16 A. I've been at LSU since 1994. Initially
17 as a graduate student.

18 Q. And did you have any industry experience

19 prior to going to LSU?

20 A. The twenty-three years prior to that I

21 worked for a company called Amoco Production

22 Company, and before that it was Pan American

23 Petroleum Corporation.

24 Q. And you performed a lot of negative and

25 positive tests in your twenty-three years?

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1 A. Well, I was an engineer for those
2 twenty-three years or a researcher or
3 engineering supervisor, and so I was associated
4 with reviewing many tests from a paper
5 standpoint, and designing and conducting tests
6 for several wells myself.

7 Q. Understood. Now, can we just go on to
8 another thing. We just went over a high level
9 thing of positive and negative testing. Can you
10 just go over kick detection?

11 A. Okay. So similar kind of concepts apply
12 to kick detection. We'd like to think of the
13 well again as being this container like a --
14 like in general just a cylinder with an open
15 top. And if we're circulating or circulating
16 and drilling, when we're drilling we would be
17 circulating, our primary kick detection, our
18 primary methods for determining whether the

19 well's under control from a well control
20 perspective or blowout prevention perspective is
21 that we expect -- we expect the flow coming out
22 of the well while we're circulating to equal to
23 the flow going into the well. So if it's -- If
24 it's truly this fixed volume container with no
25 leaks and nothing feeding into it, if we put

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1 some fluid into it, we expect that same amount
2 of fluid to come out. If the amount of fluid
3 coming out is more, well, then, that's often an
4 indication that we are taking a kick.

5 You know, that would be the scenario
6 over here on the right (indicating). We've got
7 formation fluid feeding into the well while
8 we're circulating, it's going to push more fluid
9 out than just the fluid that's being pushed out
10 by the fluid going in, and so that's -- that's a
11 very -- what we think of as being a very
12 reliable detection indicator, and it's one
13 that's absolutely standard in training for oil
14 rig personnel all over the world to recognize
15 that signature, and it turns out it's all so
16 often the first kind of really positive thing
17 that you see. So our -- It's kind of
18 standardized training that the industry uses

19 worldwide.

20 The next step -- Unless you take a more
21 conservative step, the next step after detecting
22 that there's this strong indication that a kick
23 might be occurring, this increase in flow out,
24 is that you stop the pumps and do what we call a
25 flow check. And so now we ought to be back in

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1 this condition where we've got just kind of an
2 open container sitting there. It ought to be
3 static. There ought to be nothing coming out of
4 it. If there's nothing coming in, there ought
5 to be nothing coming out. If the well's
6 flowing, what you're observing is that there is
7 continuing to be fluid coming out of the
8 container, coming down the flow line of the
9 well, and that's almost certainly because
10 there's formation fluids coming into the well
11 from some point. It doesn't have to be at the
12 bottom of the well as shown here, but somewhere
13 there's a leak of fluids from outside the hole
14 coming into the hole.

15 Q. Let's go back to negative tests, and
16 then we'll dive into your report. Do you know
17 if there's any standard negative test procedure
18 that industry follows?

19 A. I was -- So -- I don't know of any
20 standard. I was unable to find a standard in
21 this brief time I had to kind of scan that
22 amongst a lot of other things. What I was able
23 to find is a reference in one of the cementing
24 reference books describing negative tests done
25 on squeeze perforations that absolutely

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1 corresponds to this logic that I've described as
2 to kind of what we would expect from concepts or
3 logic.

4 Q. Okay. Moving on to April 20, do you
5 know how many negative tests were performed on
6 April 20, sir?

7 A. My understanding is I would say there
8 were four attempts at a negative test.

9 Q. Okay. If you can, can you just briefly
10 go over each one of them? Is that a
11 possibility, sir?

12 A. Sure. Sure. I may have to --

13 Q. No problem.

14 A. -- use my notes, and it may be that some
15 of these things are not going to show up on that
16 plot very well.

17 Q. Okay.

18 A. So the -- the technique that was used

19 for this negative test was a good bit more
20 complicated than what I've described as this
21 kind of simplistic view of what we ought to
22 expect in its simplest form but, nevertheless,
23 there's a -- There's a period here where they're
24 displacing the mud from the riser boost line and
25 the choke line and the kill line on the riser,

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1 and so in that sense these lines that are
2 external to the riser going up the side of the
3 riser, those have all been filled with sea water
4 up here. And then they begin an operation to
5 basically displace the -- the drill pipe with
6 sea water, and so there's a -- this circulation
7 over here, this is -- this is a -- pressure's
8 measured at the cementing unit, but they are
9 easier to see, the same pressures occur over
10 here. That's the pressure being applied to the
11 drill pipe going down the center of the well
12 that's delivering these new fluids into the well
13 that's going to displace the fluids in the well
14 out the annulus. And they pump a very large
15 volume of a dense spacer that they describe as a
16 16-pound per gallon slurry of mud or circulation
17 material and, you know, I do not have their
18 detailed procedures or any of their engineering

19 work or design logic for these operations that
20 they're doing, but I do have -- I guess what's
21 notable is that these operations are now all
22 occurring after the end of their recorded daily
23 report from the previous day. So the
24 documentation of these operations is not in the
25 -- not drilling records in kind of the most

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1 conventional sense of what you find typically
2 after the fact, because there was never an
3 opportunity for the people to create those or
4 finalize or formalize those records for the most
5 part. And if my memory is right, the records
6 that the Transocean personnel were keeping, that
7 do extend into -- well into the 20th, they end
8 in here somewhere in this period where the
9 fluids are being displaced. So -- But it turns
10 out that there are these -- these -- that BP has
11 made some presentations in some of the hearings
12 where they've stated what they think is what
13 they call data, and so what I'm going to be
14 describing and what's in the report is -- is --
15 in terms of these times when things were
16 happening, what the basic operation was is what
17 they've called data that at least at that point
18 in time back in May they had concluded

19 presumably was factual. And, for the most part,
20 those things correspond well with the digital
21 data, and the digital data doesn't tell you --
22 You know, you're going to see a pump pressure,
23 but you can't be certain where they're pumping
24 to, and you can tell their pressures are
25 building up as if a BOP component is closed, but

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1 you can't prove those kinds of things.

2 So, anyway, they pump this large volume
3 of dense spacer --

4 Q. I hate to interrupt you. When you point
5 with the pointer, can you tell them which
6 indicator you're looking at?

7 A. Okay.

8 Q. Is it kind of flow in/flow out?

9 A. This looks like it's green to me. This
10 green line over here is a pressure sensor that's
11 hooked up to the work string or the drill pipe
12 going into the well, and it's -- This sensor is
13 apparently actually at the cementing unit but,
14 nevertheless, it's feeling the same pressure
15 that we would see over here buried in all these
16 curves that are not so easy to look at.

17 So they begin -- They begin pumping this
18 450 barrels of spacer, and presumably -- The

19 purpose of a spacer in general is to separate

20 something. So here what we're trying to

21 separate is a 14-pound per gallon synthetic

22 based mud from sea water.

23 I'm going to skip any explanation of

24 that unless we need to prove it, but you can see

25 over here on the left side this kind of purplish

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1 line. This is a measurement of flow-out, and so
2 this is like the evidence that, yes, we're
3 pumping in, going down the drill string, and
4 we've got flow coming out from the riser annulus
5 to the flow line. They follow that 450 barrels
6 of spacer with a volume of sea water that
7 apparently was intended to be enough sea water
8 to fill the drill pipe work string which now
9 extends to a depth about three thousand feet
10 below the sea floor and to fill the annulus
11 between that work string and the casing back up
12 to the sea floor, back up to the depth where the
13 blowout preventers were.

14 So the idea was basically we're going to
15 fill the top of the well, kind of like -- kind
16 of like this yellow image down here. We're
17 going to fill the top of the well with sea
18 water, and we're going to have sea water

19 extending back to the surface in our choke and

20 kill lines, and we're going to have sea water

21 extending back to the surface in our drill pipe.

22 So, again, there's no specific record

23 why this was part of the plan. That I received

24 anyway. But it's -- it's logical in that their

25 plan that was approved -- Their plan that was

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1 approved was that they would -- they would do
2 the negative test before doing this displacement
3 down to deeper in the well, down to 8300 feet in
4 the well, but then that they would -- They
5 would -- After doing the negative test, then
6 they would displace down to 8300 feet in the
7 well with sea water, probably because they
8 thought that was going to give them a better
9 chance to get a good cement plug at that point.
10 I'm not sure. But in any event, they've changed
11 some of these steps around, and one of the
12 potential advantages of doing that is if you
13 were going to -- if you were going to displace
14 the well with sea water to 8300 feet, you'd like
15 to know that your well is going to be intact
16 when you did that. And so the way you
17 accomplish that is you displace with -- the
18 drill pipe with sea water to that depth, you

19 fill the well back to the depth of the BOPs with
20 sea water, and now -- but then you close the
21 preventer at that point, you seal the well off
22 from this remaining high density fluid that's in
23 the riser, and if you -- What they literally did
24 in their first test is now they've got this
25 drill string that's going doing through the

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1 middle. It's not on my graphic. It's got a
2 preventer closed around the outside that's
3 sealing the annulus. It has about 2400 PSI
4 pressure on top of it. They bleed that -- They
5 attempt to bleed that 2400 PSI of pressure off.
6 That would have been a really rigorous test, and
7 it turns out it was probably more rigorous than
8 what they intended because the -- this spacer
9 that was supposed to separate the sea water from
10 synthetic based mud, it -- All the evidence is
11 it was not being displaced upward with the water
12 very effectively. A lot of it was falling back
13 down through the sea water. And so instead of
14 the well actually being -- the annulus -- Well,
15 the annulus of the well being filled from 8300
16 back to the about 5,000 feet sea floor with sea
17 water, that space was filled with a mixture of
18 this heavy mud and sea water that was actually

19 more heavy mud than it was sea water.

20 That's why this pressure that was on the

21 drill pipe was about 23, 2400 PSI instead of --

22 I don't have that calculation on this piece of

23 paper, that particular page, but about 1600 PSI

24 I think is what they would have expected the

25 initial pressure to be at the beginning of this

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1 test.

2 So right off the bat, before they ever
3 started the test, they've got enormously high
4 pressure on the drill pipe. And since we don't
5 have any records of -- from the -- any
6 conventional sense other than people's memory,
7 you don't have any records of what they were
8 doing and why. There's -- There's not -- You
9 know, I certainly have no record as to -- as to
10 why that wasn't a warning sign right off the bat
11 that we're not conducting the test that we set
12 out to test.

13 (DISCUSSION OFF THE RECORD)

14 BY MR. MATHEWS:

15 Q. You can finish.

16 A. So, nevertheless, with this heavier --
17 with this heavier fluid in the annulus below the
18 blowout preventer, when they tried to bleed --

19 They got a higher pressure than they expected,
20 so when they try to bleed that pressure down to
21 zero, they're actually changing the pressure
22 more than they originally intended. They're
23 doing a more severe test than what they
24 originally intended. And that first test was
25 not successful, and --

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1 Q. Can you tell what time that was
2 confirmed with your data on -- that rig data you
3 have in front of you, sir?

4 A. Let me dig back through my notes here
5 and see where we're at. So this is supposed to
6 be in a period I think about 1705 to 1725. No.
7 Looks like it's even earlier than that. Period,
8 1653 to 1705, and -- I don't believe that
9 there's really very much that we can see in the
10 data. So in the data itself there's a period --
11 It's actually now a little easier to see it over
12 here. This kind of pinkish line is the drill
13 pipe pressure when they were circulating the sea
14 water in place, and then back over here there's
15 a record of the pump rate in black. They turned
16 the pumps completely off, that pressure falls,
17 and it falls to a pressure -- and it's hard to
18 see this on the -- on the plot, but it falls to

19 a pressure somewhere in that range of 23, 2400
20 PSI, and then the pressure gradually declines
21 from that point to down in here to a pressure of
22 about 250 to 300 PSI. And what we cannot see in
23 the data is where that fluid is being bled to or
24 how much fluid is being bled.
25 So in terms of the answer to this

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1 question, if you bleed the fluid off and it
2 stops, there's nothing in the digital data that
3 says that it bled back at all. So we can't see
4 that a volume bled back and stopped. That could
5 be because they were bleeding back to the
6 cementing unit and there's no volume measurement
7 on the cementing unit. It could be because they
8 were bleeding back somehow to the -- to the
9 pits, bypassing the flow line, and we're not
10 seeing the flow in the flow line. Okay. But
11 what -- and I don't know that that plot is on
12 here either.

13 There was another pressure gauge on the
14 kill line that I don't think -- I don't think
15 there's anything on this plot that shows that,
16 those readings, but the pressure on the kill
17 line had been about 1400 PSI, if my memory's
18 right. The pressure on the kill line is

19 starting to fall as well, which is what you
20 would expect. You know, you're taking pressure
21 off someplace in the well. Everything else is
22 open. It feels that same reduction in pressure.
23 Q. Okay.
24 So -- I'm reading a little bit, trying
25 to make sure I get the sequence right. So the

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1 kill line pressure goes all the way to zero when
2 there's still about 450 PSI on the drill pipe.
3 They continue to bleed the drill pipe to about
4 266 PSI. So they've dropped -- They have
5 apparently dropped below a pressure that would
6 have kept the kill line full, which is
7 potentially relevant later on.

8 And then in terms of what's in the data,
9 there's just not very much there that's useful.
10 What's useful is in this presentation that BP
11 prepared for one of the Congressional
12 committees, I believe, is they talk about that
13 there's -- there's evidence that they've
14 identified that the fluid level fell in the
15 riser and that, in fact, they refilled the
16 riser.

17 So for the fluid level to have fallen in
18 the riser, this heavy mud in the riser has to be

19 falling past the closed annular preventer going
20 down into the well. And why there's -- Why
21 there's no testimony about what was bleeding off
22 during this time when we would expect nothing to
23 bleed back, I have no idea.
24 So do you want mostly just the sequence
25 of what's happening or --

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1 Q. Yeah. You answered the question. I
2 just was -- You obviously said that test was not
3 adequate from your interpretation of it, and I
4 was just listening to your explanation of what
5 was going on.

6 A. Okay.

7 Q. I was just concentrating. Now I'm going
8 to move on to the second negative test that you
9 had.

10 A. So the summary of this first test would
11 be -- And let's see. We're going to really go
12 one step further. They -- They closed a valve
13 on the drill pipe and they record what the
14 pressure does. Instead of the pressure staying
15 low with this kind of 260 PSI that it is
16 currently, it builds back up to something on the
17 order of 14 or 1500 PSI. That we can see -- I
18 believe -- I believe that's on this block that's

19 right there is the drill pipe pressure going
20 back up, and it's this pink line over here, the
21 drill pipe pressure goes back up.

22 So we're getting this evidence that it
23 was not a successful test, even though we don't
24 have a record of the -- of what was bled off.
25 And the information that's not in here is, well,

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1 you wouldn't expect it to be a successful test
2 if the annular preventer was leaking and you had
3 riser fluid going down into the well while you
4 had that drill pipe open.

5 So this is an unsuccessful test. It's
6 inconclusive about what it was really Intended
7 to test. You know, it's pretty conclusive that
8 the annular preventer didn't hold the
9 differential pressure, but it's not conclusive
10 about what the well itself is doing.

11 Q. Thank you. And then what about the
12 second test, sir?

13 A. Okay. So they talk about switching to
14 using the cementing unit to pump with. This
15 says that they're going to monitor at the
16 cementing unit, so they have refill the riser
17 and they bleed pressure off of the drill pipe
18 again, but they are bleeding back into the

19 cementing unit which has measuring tanks. So
20 now they're getting -- not in this data but in
21 apparently this -- some prior testimony
22 somewhere they -- BP says the witness statements
23 indicated about 15 barrels of mud were returned
24 to the cementing unit when they were bleeding.
25 So that's like four or five times what you would

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1 expect from this relatively low pressure. Then
2 they installed something called IBOP. They
3 installed a valve in the drill string that they
4 closed. So now we can't detect pressure in the
5 drill string anymore because the drill string is
6 closed with this valve that's closed ahead
7 upstream of all our pressure sensors.
8 Nevertheless, it shut the well back in.

9 So I'm not sure what the point of this
10 is other than that it's a prior positive closure
11 on the well. They leave it that way for a
12 period of time, so there's a period of time when
13 they're working on the cementing unit now, so
14 now they're literally monitoring with this
15 pressure gauge on the cementing unit where the
16 pressure on the cementing unit is zero, but
17 there's no flow back from the well, but the well
18 is closed in where you can't -- where that

19 pressure gauge can't feel anything. And then
20 they leave it that way for a while, and then
21 there's this spike where my interpretation --
22 again, I don't have any facts as to what they
23 are opening and closing, but my interpretation
24 is they have opened that IBOP. I can't -- I
25 can't remember whether that's something that --

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1 I don't think there's anything about that in
2 the -- in this -- the data or factual part of
3 the BP records, but they opened that IBOP, and
4 almost immediately they've got like 750 PSI, 770
5 PSI at the cementing unit. So my interpretation
6 is the pressure has built back up again. They
7 bled it off, they bled off more than they
8 expected, if in fact anybody had thought about
9 what they might expect, and now it's building
10 back up again. And so, you know, my conclusion
11 is that's not a successful test.

12 They bleed that pressure off again, and
13 again in these -- this BP presentation there's
14 some implication that there's an additional
15 three to fifteen barrels are bled; that there's
16 a witness that said the well continued to flow
17 and spurt; that kind of the implication is it's
18 during this period of time. So -- But three

19 barrels would have been okay. Fifteen barrels

20 would have been really bad again.

21 That -- Maybe that's not rock solid as

22 to what the meaning of that is, but what my

23 opinion is rock solid is they shut it in again,

24 this time they're shutting it in at the

25 cementing unit, so they're seeing the pressure

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1 build up on the drill pipe, and the pressure

2 builds back up again to about 1400 PSI.

3 Now, so everything -- everything I know

4 from my experience, from logic, from examples

5 given in this cementing textbook, you would

6 expect that pressure to stay zero, and this

7 pressure building back up is evidence that

8 something is leaking in there, repressuring the

9 system.

10 So I think for me this is like this is

11 the one where you can see the whole thing in the

12 data, and there's no real indications that it's

13 the annular preventer leaking. There's no notes

14 about that. There's nothing that I can see

15 where they're refilling risers or anything.

16 There is stuff going on in the background, but

17 that -- that looks like a pretty conclusive bad

18 test.

19 Now, there's some things in some of the
20 recent testimonies that I've just gotten
21 glimpses of. Apparently there are people that
22 are convinced that was a good test.

23 Then there's a long period of time here
24 where there's -- It's not obvious from just
25 glancing at the data that there's anything going

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1 on, but apparently they've concluded that, well,
2 we've done all this stuff and it doesn't really
3 match what we put in the permit that we said we
4 were going to do, and so I don't know whether
5 this is something to try to be sure that they
6 were fulfilling the permit or whether they are
7 uncertain and they are trying to get another
8 test as a confirmation, but what was described
9 in the permit was that we'll do this negative
10 test on the kill line with the kill line filled
11 with sea water. And so they -- I'm not sure I'm
12 going to get this right without doing it in the
13 exact sequence, without doing some reading, but,
14 you know, it filled the kill line with sea water
15 before they ever displaced the well to sea
16 water. So at the beginning of all this, the
17 kill line was filled with sea water for sure.
18 Now, since then, they dropped the pressure on

19 the kill line -- we could say in laymen's
20 terms -- below zero, and then they pressured
21 back up again, and actually they've done that
22 probably three or four times now.
23 So the piece that doesn't make sense
24 here -- In hindsight doesn't make sense -- is
25 that we know there's all this heavy LCM spacer

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1 mud stuff in the well below the BOP. If we're
2 pulling the sea water out of the kill line down
3 into the well because we're dropping the
4 pressure in the well so much that it won't
5 support that column of sea water anymore, then
6 we close the well in, the pressures go back up,
7 well, you've got this mixture of sea water and
8 heavy mud now underneath the BOP. Likely that
9 mixture is what's going back up into the kill
10 line. And so the -- the evidence -- the
11 evidence of that is that when there's 14, 1500
12 PSI on top of the drill pipe that is -- kind of
13 no telling what it's exactly filled with, but
14 presumably it's mostly filled with sea water
15 still because we haven't bled great volumes off
16 of it, at the top especially. It's a pretty big
17 diameter pipe. This pressure on the -- on the
18 choke line is only 150, 300 PSI, something like

19 that, so we've got this -- this absolute proof
20 that the well is not still filled with sea water
21 all the way around; that in our engineer
22 language the U tube is not balanced. The U tube
23 is very much unbalanced. And the kill line side
24 is heavy because it has less pressure at the
25 surface. So when they -- they're going to do

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1 this test on the kill line, they pump a little
2 sea water in the kill line, pressure it up a
3 little bit, try to be sure that it's full, which
4 is -- which is logical, although it had pressure
5 on it when they started so it was almost
6 certainly full at that point to begin with, and
7 then they bleed that pressure back off and they
8 leave it open, and there's no -- again, there's
9 like no definitive record anywhere that this is
10 exactly the truth, but apparently it was what we
11 would call dead. Apparently it then is -- They
12 bled back this little tiny volume from when they
13 pressured it up to be sure it was full, a
14 quarter of a barrel or something, and then the
15 return stopped. So now at the simplest level
16 they've actually achieved something that looks
17 like this. They've actually got the well open.
18 It's open to atmosphere so there's no pressure

19 on it and there's no fluid coming out. So the
20 kill line is safe. The well is safe with the
21 kill line open. It's over balanced. But all of
22 the quantitative data tells us that that kill
23 line has got substantial amounts of this heavy
24 mud in it that are what's holding the pressure
25 back, you know, that we're not doing the test

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1 with a line filled with sea water. We're doing
2 a test with a line that's got this dense stuff
3 in it, which is not what we really wanted to do.

4 So, you know, in terms of the symptoms,
5 in the simplest sense the symptoms are a
6 successful test, but the reality is it's not a
7 test at all. My opinion.

8 Q. So is it your opinion that neither of
9 the tests are acceptable tests?

10 A. None of the four tests were an
11 acceptable test.

12 Q. Would you consider that they were
13 completed in an acceptable manner?

14 A. No.

15 Q. Do you know Of any industry practice of
16 interpreting a negative test?

17 A. In terms of things that I could find
18 that were documented, only this one reference in

19 the cementing book.

20 Q. Were industry practices followed in

21 interpreting the negative tests?

22 A. I would say no. I can't -- I can't

23 document that because I --

24 Q. You don't know?

25 A. But --

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1 Q. Had you ever seen such a large spacer of
2 454 barrels ever pumped before, sir?

3 A. I don't think so.

4 Q. Had you seen one with LCM specifically
5 with that volume?

6 A. It depends on what the LCM is. A thing
7 that we published back in the -- We being Amoco.
8 I was one of the authors -- that we published
9 back in the eighties sometime was if you use
10 things like calcium carbonate, which is
11 sometimes used as an LCM, it can also -- it's a
12 solid so it can be used as a scouring agent that
13 helps you clean up the inside of the casing as
14 you're trying to displace mud with a clear
15 fluid.

16 Q. Under the assumption that the DEEPWATER
17 HORIZON -- and assume that their negative test
18 was actually an acceptable test and actually

19 passed. Do you still monitor for kicks?

20 A. Yes, sir. I think your regulations

21 would require that.

22 Q. What are the two most important kick

23 indicators while circulating?

24 A. Is flow-out greater than flow-in, and if

25 that occurs over any length of time, then pit

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1 gain or increase in the mud level in the pits is
2 the other positive indicator.

3 Q. In your view, what time did you identify
4 a kick coming to the surface, sir?

5 A. I think the most conclusive point or the
6 first really conclusive point, the first point
7 that I see is down here -- and I think that's
8 about 2100 -- It's roughly 2100 hours there.

9 What's happened here is that they finished these
10 four tests, they apparently concluded that the
11 tests were successful, and I think there's some
12 evidence of that in testimony somewhere, and so
13 now they are ready to continue their operation,
14 and before they -- This is -- You know, they
15 were going to displace the sea water before they
16 spotted their cement plugs, so now they're going
17 to finish their operation to displace the sea
18 water is effectively the last operation that

19 they attempted to do. So they've -- They've
20 opened their preventers and they're beginning to
21 circulate again, and they start out circulating
22 with their -- with their mud pumps down the
23 drill string, and at some point here they also
24 begin circulating sea water down the -- what's
25 called the riser boost line. It's an external

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1 pipe on the outside of the riser that allows you
2 to get more fluid pumped into the riser and
3 displace the riser faster. And that would be
4 really desirable both in terms of time and in
5 terms of trying to get this -- this heavy
6 16-pound per gallon stuff out, and so while
7 they're doing that, there's a -- there's a point
8 in time down here where this -- I guess this
9 kind of a pink color is the flow-out -- where
10 there's a significant increase in the flow-out.
11 I've got to look at my copy. I think I can see
12 it a little sharper. Or maybe just switch -- At
13 some point we may need to switch to that other
14 graphic.

15 Q. We can do that right now. It might be
16 helpful to concentrate on that time period.

17 A. Okay. And it will be real clear on this
18 one, although it doesn't have all the data on

19 it.

20 So the top of the yellow space is what's

21 called flow-in. That's the rate of fluids, of

22 sea water, that's being pumped into the well.

23 The red line is flow-out. It's some kind -- I

24 don't know what kind of meter is being used, but

25 it's some kind of meter on the flow line that's

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1 measuring the rate of fluid coming out of the
2 well, and what I've seen through the whole
3 period of time that I had data for was that the
4 flow-out, as recorded by the meter, is generally
5 about ten to thirteen percent lower than the
6 pump rate. So the flow-out meter is -- is not
7 particularly accurate, and that's a common
8 problem.

9 Most rigs don't have a flow-out meter at
10 all. They have a flow-out sensor that's not
11 quantitative so -- and the reason is it's real
12 hard to have a meter that will measure rates
13 accurately for these dense fluids that the
14 solids and the fluids that control the density
15 are changing in volumes and proportions.

16 Nevertheless, their flow-out meter is
17 pretty -- pretty consistent over time when it
18 reads this ten to thirteen percent level, but

19 what we see right here is that -- Again, this is
20 about -- This is almost exactly 2100 hours at
21 this point right here -- is that that flow-out
22 meter jumps up, and there's -- So right off the
23 bat, kind of first order assumption is something
24 changed. The well is trying to flow.
25 Now, that's not a guarantee. There are

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1 other things -- You know, anything that's
2 increasing the flow down that flow line would
3 make that meter go up. So there's some chance
4 it's something that they were doing
5 intentionally. We don't have records. We don't
6 know.

7 The side issue that complicates this is
8 that this whole time they've been transferring
9 their synthetic based mud that's this, you know,
10 valuable expensive commodity, they've been
11 pushing it out of the well. It's got to go
12 somewhere. Well, they're moving it to boats so
13 that they can take it back to the base and reuse
14 it in the future. They're bringing sea water
15 onto the rig so they have sea water in the pits
16 to displace the mud from the well, and there are
17 long periods of time here where our other
18 indicator that we would typically use for kick

19 detection is pretty much irrelevant because the
20 fluid level is either dropping rapidly because
21 we're draining something, it's refilling rapidly
22 because they're moving some sea water in, or
23 maybe both, you know, and those are the kinds of
24 things we don't have any way to track why things
25 are happening within the digital record. We

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1 typically wouldn't have anything in a
2 permanent -- in the permanent written records or
3 reports that says why we're moving fluids
4 between pits or when we're doing it, and those
5 kinds of things would only be in people's
6 individual notes or maybe a mud log or data log
7 or other kind of informal records.

8 Nevertheless, it appears -- it appears
9 that the flow-out is increased. Standard
10 indication that a kick is probably in progress.
11 There's -- You know, there's about a nine to
12 ten-minute period here where they just endure
13 that.

14 The one thing that's going on during
15 that period of time that -- that's buried down
16 in here that you can't see is that fluid level
17 -- the fluid level in the trip tank is also
18 falling during that period of time.

19 So there's some chance that for some
20 reason somebody's turned on what we call the
21 fill-up pump and they're transferring the fluid
22 from the trip tank into the -- into the top of
23 the riser and it's going down the flow line, and
24 it's what's causing this increased return.
25 It's not -- The story then would be

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1 what's not -- Somebody just moving fluid from
2 one place to another place and they happen to be
3 doing it in a way that it goes through the flow
4 line. Don't know that.

5 What we do know is that if I totalize
6 this volume, basically the volume between the
7 red line and the top of the yellow space,
8 that's -- there's a word here. Gain. You know,
9 gain is generally meaning a change in pit level,
10 but since the pit level doesn't really mean
11 anything here, we can't use that. And I think
12 this is a plot that BP actually made. This is
13 not my plot. But you see the same data
14 over here. It's just easier to see on this one.

15 If we kind of look at what the volume
16 between these two lines is, there's almost a
17 hundred barrels that's been accumulated during
18 this period of time where the red line's above

19 the yellow space and then above zero down here;

20 whereas, the volume that's drained out of the

21 trip tank is about 60 barrels, if my memory is

22 right.

23 And then the thing that's -- The next

24 thing that's dramatic is when they turned the

25 pumps off and what the -- we'll call it

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1 testimony I guess says is that they were -- they
2 stopped circulating to do a sheen test, and a
3 sheen test is something they would do with a
4 water based mud like this spacer to verify that
5 it didn't have any oil in it, to verify that it
6 would be acceptable to discharge it overboard.
7 So this spacer is presumably water based and
8 it's relatively low value stuff. It was
9 intended to be a -- like a scrub that you
10 would -- that you would throw away.

11 So they're getting ready to do that, but
12 while they're doing that, they've got the pumps
13 turned off, this return flow drops. It doesn't
14 drop nearly as quickly as it did on a normal
15 pump shutdown or turn the pumps off, and it
16 doesn't go to zero like it normally would. It
17 stays at almost two barrels a minute.

18 So we would call this -- If we go back

19 to this world where we're in kick detection, we

20 call this a positive flow check. The well is

21 flowing.

22 Now, there's some chance there's

23 something else going on but, you know, first

24 look, it looks -- The data that we've got, it

25 looks like the well is flowing at that point.

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1 The standard training everybody has worldwide is
2 you shut the well in with the blow-out
3 preventer. Clearly that didn't happen. The
4 second order would be, well, if we know that
5 we're intentionally putting down that flow line,
6 well, then we wouldn't need to shut the well
7 down, but we're -- You know, we're violating all
8 of our requirements, whether they're logical or
9 industry practice or API recommended practices
10 or MMS requirements. You know, we're either
11 ignoring the monitoring of the well or we're --
12 we're not monitoring at all.

13 Q. So is it your opinion from the data you
14 received that the personnel didn't accurately
15 identify the kick was occurring?

16 A. That's -- That's my interpretation.
17 There's a possibility that there's other
18 explanations but, you know, my interpretation

19 from the data that we have is that the kick was
20 occurring at this point in time and it's being
21 ignored.

22 And you may find things from the people
23 that were on site that would prove that that's
24 not the correct interpretation.

25 Q. And what is your opinion of the data of

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1 the pit management program and the actual
2 monitoring of volumes on board the DEEPWATER
3 HORIZON, sir?

4 A. I think it would have been logical both
5 from the standpoint of complying with the
6 regulations and from the standpoint that, you
7 know, certainly there were people on the rig who
8 did not consider these -- at least some of these
9 tests to be conclusive or good tests or they
10 wouldn't have done this four times. So in
11 hindsight -- in hindsight reasonable logic would
12 be hey, we ought to be more careful instead of
13 less careful, and having said that, you know,
14 the people that believe the tests were
15 successful, they've already done -- They think
16 they've already done a test as severe as
17 anything that's going to happen. They think
18 they've already proven that the well is safe,

19 which is a reason why -- If the well is safe, if
20 it's sealed up and you've proved it's sealed up
21 and it's not going to leak, well, that's a
22 reason to produce your rigor.

23 Q. Understood. At this time I have no
24 further questions. The Board may have some.
25 We'll turn it over to them.

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1 CAPT NGUYEN:

2 No questions at this time.

3 Why don't we take a break at this

4 time and resume at 3:25.

5 (WHEREUPON, A BRIEF RECESS WAS TAKEN)

6 CAPT NGUYEN:

7 Please be seated.

8 BY MR. MATHEWS:

9 Q. Dr. Smith, during the break I was asked

10 to do some quick follow-up just because there

11 was some confusion in some earlier testimony,

12 some differing of numbers in previous

13 individuals' testimony. From your review of the

14 data, how many negative tests were performed on

15 April 20th?

16 A. I count four times, four things that I

17 would call separate tests.

18 Q. Of those four tests, were any of them,

19 in your opinion after reviewing the data,

20 indicative of a successful negative test?

21 A. No.

22 Q. Did the personnel at DEEPWATER HORIZON

23 on April 20th in a timely fashion identify that

24 a kick was occurring from your view of the data?

25 A. No.

ASSOCIATED COURT REPORTERS

1 Q. Was the --

2 A. That's essentially an opinion.

3 Q. Yes, sir. Understood. Is the
4 displacement of the riser in offloading to a
5 vessel an industry -- safe industry practice?

6 A. It has to be if it's necessary.

7 Q. Thank you.

8 CAPT NGUYEN:

9 Flag state.

10 MR. LINSIN:

11 Thank you, Captain. No questions
12 for Dr. Smith.

13 CAPT NGUYEN:

14 Mike Williams.

15 (NO RESPONSE)

16 CAPT NGUYEN:

17 Stephen Bertone.

18 MR. LONDON:

19 No questions.

20 CAPT NGUYEN:

21 Patrick O'Bryan.

22 (NO RESPONSE)

23 CAPT NGUYEN:

24 Robert Kaluza.

25 (NO RESPONSE)

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1 CAPT NGUYEN:

2 BP.

3 MS. KARIS:

4 Yes. Thank you, Captain.

5 CAPT NGUYEN:

6 Thank you.

7 MS. KARIS:

8 Good afternoon. Thank you. May I

9 proceed?

10 CAPT NGUYEN:

11 You may.

12 E X A M I N A T I O N

13 BY MS. KARIS:

14 Q. Good afternoon, Dr. Smith. I'm Karis,

15 H-A-R-I-K-L-I-A, Karis, counsel for BP. I want

16 to talk to you about a couple of areas that are

17 addressed in your report that we haven't yet

18 covered I believe this afternoon.

19 Sir, did you evaluate industry standards

20 with respect to certain drilling practices and

21 operations as part of the report that you

22 prepared?

23 A. Yes.

24 Q. Okay. And I'd like to talk to you about

25 some of the industry standards that you looked

ASSOCIATED COURT REPORTERS

1 at. I take it first as a result of the years
2 that you've been teaching and your involvement
3 in the drilling industry that you're familiar
4 with industry standards for drilling operations;
5 is that correct?

6 A. Yes. Generally.

7 Q. Okay. And are you familiar with
8 industry standards as they relate to deepwater
9 drilling operations?

10 A. The things that are truly standards that
11 are published, yes, I have access to those.

12 Q. Terrific. Now, you're familiar with
13 what are called API standards, American
14 Petroleum Institute standards; correct?

15 A. Yes, ma'am.

16 Q. And would you agree with me that the API
17 standards, those are standards that basically
18 call -- or demonstrate, I should say,

19 engineering and operating practices?

20 A. Well, there's different items. Most of
21 the things that would apply are not standards.

22 They're recommended practices.

23 Q. Fair enough. So the API is actually
24 recommended practice as opposed to some
25 regulation or standard; is that correct?

ASSOCIATED COURT REPORTERS

1 A. Yes, ma'am.

2 Q. And would you agree that all of the API
3 standards or recommended practices state right
4 up front in the Foreword section that they're
5 not intended in any way to inhibit anyone from
6 using any other practices.

7 A. I can't honestly say that I remember
8 that, but it's -- Generally in engineering we
9 don't want to prohibit a better practice if
10 someone has found a better practice.

11 Q. Fair enough. Would it help you refresh
12 your memory, if you will, as to whether the API
13 specifically used those words if I gave you a
14 copy of an API standard?

15 A. Sure.

16 MS. KARIS:

17 Excuse me. Captain, may I
18 approach?

19 CAPT NGUYEN:

20 (Nodding head affirmatively).

21 MS. KARIS:

22 Thank you.

23 BY MS. KARIS:

24 Q. (Exhibiting document to witness).

25 MR. DYKES:

ASSOCIATED COURT REPORTERS

1 Ms. Karis, for the record, which
2 API standard are you giving Him?

3 MS. KARIS:

4 This is API Practice 59, Dr. Smith
5 referred to in his report.

6 MR. DYKES:

7 Thank you.

8 BY MS. KARIS:

9 Q. Dr. Smith, I've handed you a copy of API
10 Practice 59. Is this one of the standards that
11 you've referenced in your report?

12 A. Yes, ma'am.

13 Q. Okay. And we're not going to go through
14 the entire standard, I promise, but I'm just
15 wondering if you could turn, sir, to the
16 Foreword section.

17 A. Okay.

18 Q. Actually, turn to Special Notes, if you

19 will, which is right up front.

20 A. Okay.

21 Q. You agree, sir -- Professor, that the

22 API states that these are published to

23 facilitate broad availability of proven sound

24 engineering and operating practices. These

25 publications are not intended to obviate the

ASSOCIATED COURT REPORTERS

1 need for applying sound engineering judgment
2 regarding when and where to utilize these
3 publications; is that correct?

4 A. That looks like what it says.

5 Q. Would you agree with me that applying
6 engineering judgment to drilling operations is
7 an essential part of carrying out those
8 operations?

9 A. Yes, ma'am.

10 Q. And part of applying engineering
11 judgement of course is relying on someone's
12 background and prior experiences they've had in
13 that area; correct?

14 A. That's reasonable. That's part of what
15 you need.

16 Q. And so when one is determining, for
17 example, what practice or what drilling plan to
18 put together, you would expect them to look back

19 on their prior experiences in developing their
20 drilling plan; fair enough?

21 A. That's part of what you would do, yes,
22 ma'am.

23 Q. Okay. Now, the drilling plan, are you
24 familiar generally with the drilling plan that
25 was put together for the MACONDO Well?

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1 A. No, ma'am.

2 Q. Are you familiar with whether or not the
3 drilling plan that was put together for The
4 MACONDO Well called for a long string as opposed
5 to a liner?

6 A. I do have a copy of the -- what was
7 submitted in the permit for the well. I believe
8 that it was permitted with -- or the version of
9 the permit that I have I believe has a long
10 string in it.

11 MR. DYKES:

12 Ms. Karis, Dr. Smith was employed
13 to look at the last 24 hours of data. He was
14 not hired to look at the well design itself.

15 MS. KARIS:

16 Sir, I understand, but I believe in
17 his report he offers some opinions relating to
18 some of the design decisions, including, for

19 example, Pages 16, 17, and 18, and I was going

20 to cover specifically what was in his report.

21 MR. DYKES:

22 Okay.

23 BY MS. KARIS:

24 Q. Isn't that correct, Dr. Smith, that one

25 of the things that you addressed in your report

ASSOCIATED COURT REPORTERS

1 was whether or not use of a long string is
2 consistent with industry practice?

3 A. As has been stated twice now, that was
4 not a focus or intention of the work that I was
5 hired to do, so you'll probably need to cite
6 exactly what you want me to comment on.

7 Q. Sure. Well, let me ask you this. Do
8 you recall looking in your report as whether --
9 as to whether using a two-barrier long string
10 conforms with industry practice?

11 A. I don't think I made that explicit
12 judgment. Certainly there could be two barriers
13 with a long string.

14 Q. Okay. Let me refer you to your report.
15 Do you have your report in front of you, sir?

16 A. Yes, ma'am.

17 Q. Terrific. If you would go, If you will,
18 to Page 17 of your report. Would you agree, Dr.

19 Smith, that it's your opinion that a general
20 industry practice is to maintain at least two
21 barriers of flow during all operations?

22 A. Yes, ma'am.

23 Q. Okay. And does utilizing a long string
24 design do exactly that, that is maintain at
25 least two barriers of flow?

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1 A. It can.

2 Q. Am I correct, sir, that you are not

3 critical of the use of a long string in a

4 production well design?

5 A. I have -- I have not studied that aspect

6 of this case.

7 Q. Fair enough. Let's talk then, if you

8 will, about cement bond logs. Did you address

9 cement bond logs as part of the work that you've

10 done in this case?

11 A. There was no cement bond log run, so

12 there are comments here about cement bond log.

13 Q. Okay. So as part of the work that you

14 did in connection with this report -- and,

15 again, if it would help refresh your memory it's

16 on Page 16 of your report. Would you agree that

17 you do not have to run a cement bond log for

18 each drilling operation and completion

19 operation; is that correct?

20 A. That would correspond to my personal

21 experience and to kind of a broad industry

22 practice, yes, ma'am.

23 Q. And are there regulations that you're

24 familiar with and that you cite in your report

25 that indicate when a cement bond log would be

ASSOCIATED COURT REPORTERS

1 needed?

2 A. There are regulations that require some
3 form of additional test or confirmation if
4 there's indications during a cement job that it
5 might not be successful.

6 Q. And one of the ways to determine whether
7 you have a successful cement job is to look at
8 whether you have any loss returns; correct?

9 A. That's correct.

10 Q. And another way to look is to see
11 whether or not you achieved proper lift
12 pressures?

13 A. I presume you're describing what we --
14 indicating what we would typically call in the
15 industry pressure bump the plug, yes, ma'am.

16 Q. And if you bump the plug as predicted at
17 the time you predicted with the pressure you
18 predicted, that would be another indicator of a

19 successful cement job; correct?

20 A. Yes, ma'am, it's an indicator.

21 Q. And so based on the regulations that you

22 cite in your report, if you have no loss returns

23 and if you've got proper lift pressures and if

24 you bump the plug as expected, those would all

25 be reasons to not perform a cement bond log

ASSOCIATED COURT REPORTERS

1 as -- and in accordance with the -- excuse me --
2 regulations?

3 MR. GODWIN:

4 Captain, I'd like to object here.

5 There's been no basis shown or foundation laid
6 to show that this witness is qualified as an
7 expert in cementing, and I think that she needs
8 to show that and establish it before she's
9 allowed to continue going down this path asking
10 him opinions about cementing and cement bond
11 log, and things of that nature.

12 MS. KARIS:

13 I can establish some foundation.

14 MR. GODWIN:

15 Well, we'd like to have it before
16 any more question's asked about this subject.

17 CAPT NGUYEN:

18 Sure.

19 MR. GODWIN:

20 Thank you.

21 BY MS. KARIS:

22 Q. Dr. Smith, how many drilling operations
23 have you been involved in that involved cement
24 jobs?

25 A. Oh, as indirectly as a petroleum

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1 engineering supervisor, hundreds. Personally as
2 a drilling engineer, about half a dozen.

3 Q. And in those half a dozen you were
4 personal involved in and the hundreds that you
5 supervised, did you become familiar with the
6 standards for when cement bond logs are
7 required?

8 A. I would say that during my period in the
9 industry, which ended about fifteen years ago,
10 that that was very subjective.

11 MR. GODWIN:

12 Excuse me, Counsel.

13 Captain, at this time I'd like to
14 suggest that based on what the witness just
15 said, while he's obviously a very distinguished
16 professor and an expert in some areas, he said
17 he's only been personally involved in about six
18 cement jobs --

19 THE WITNESS:

20 No, that's not what I said. I said

21 six wells.

22 MR. GODWIN:

23 Six wells. And even then, that's

24 not been enough so far to show that he's

25 qualified as an expert in cementing. I think we

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1 have to go into a lot further than that than
2 just talk about six wells. Otherwise, we'll
3 spend all afternoon here talking about cementing
4 with someone who may not be qualified to give
5 opinions.

6 MR. DYKES:

7 I agree with Mr. Godwin. You can
8 go directly to the report.

9 MS. KARIS:

10 Absolutely. It goes directly to
11 what's addressed in his report.

12 MR. DYKES:

13 Go directly to the report.

14 MS. KARIS:

15 I'm sorry?

16 MR. DYKES:

17 Go directly to the report. I want
18 you to question him about the report.

19 MS. KARIS:

20 Fair enough.

21 BY MS. KARIS:

22 Q. Professor Smith, after your direct
23 involvement with drilling those six wells, and
24 then of course supervising hundreds of others
25 that involved cement jobs, in your capacity as a

ASSOCIATED COURT REPORTERS

1 professor have you remained familiar with the
2 standards for cementing operations in drilling?

3 A. Generally, yes.

4 Q. And as part of your well control
5 expertise, does it require you to become -- to
6 be generally familiar with cementing operations
7 and regulations that apply to cementing
8 operations?

9 A. In terms of regulations marginally.

10 Q. Have you in your capacity as a professor
11 and in the prior work that you've done remained
12 familiar with the regulations that apply to
13 cementing operations, including whether or not a
14 cement bond log is required?

15 A. I think so.

16 Q. And in this case in particular, you
17 looked at whether or not in the 24-hour period
18 preceding this event were there any losses of

19 cement during operations; correct?

20 A. Well, the only time there would be

21 losses of cement is when the cement is actually

22 in the hole, so it turns out it's a very short

23 period of time. Just a few minutes.

24 Q. Fair enough. Part of your consideration

25 of fluid Losses also looked at whether or there

ASSOCIATED COURT REPORTERS

1 were any Losses during the operation; correct?

2 A. Yes, ma'am.

3 MR. GODWIN:

4 Captain, again, objection. The
5 professor has said that his knowledge is general
6 and marginal. Again, that does not establish
7 him as an expert in cementing.

8 There's been no foundation laid for that, and I
9 object to her continuing to ask questions about
10 a subject that he has only general knowledge
11 about or marginal knowledge about. When you're
12 an expert, you've got to have a lot more
13 knowledge than that to be qualified, and I
14 object to this line of questioning.

15 MR. DYKES:

16 Ms. Karis, I'm still waiting for
17 you to go to the report. What in the report are
18 you questioning him?

19 MS. KARIS:

20 His -- I'm sorry. I misunderstood
21 you. I thought you told me to not go to the
22 report. To establish a foundation

23 MR. DYKES:

24 No. Go to the report. Mr. Smith
25 produced this report as part of a contract. He

ASSOCIATED COURT REPORTERS

1 was asked specifically to look at the rig data
2 that we supplied to him in the last 24 hours,
3 and that's one of the things that if you go to
4 Page 15, he makes some brief comments there, but
5 he also states that it was outside of the scope
6 of his study. It was some observations that he
7 made looking at the data.

8 MS. KARIS:

9 If I can direct him to his report.

10 BY MS. KARIS:

11 Q. Professor, if you could look at Page 16
12 of your report. As part of the observations
13 that you MADE in this case, did you find that
14 the lack of symptoms of either severe loss
15 returns, LOSS in pits, or loss or low pressure
16 to bump the or plugs, or severe channeling high
17 pressure to bump the plug indicates that the
18 cement placement was implemented essentially as

19 planned?

20 A. Yes, ma'am. I also note that because
21 the pressure to bump the plug was so small, that
22 that's not a particularly conclusive evaluation.

23 Q. Fair enough. Did you also find that
24 none of the --

25 MR. GODWIN:

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1 Objection. That's the point I'm
2 making right there. He just said that that
3 comment is not a conclusive statement regarding
4 that subject, and she continues to spend time
5 and waste time here this afternoon talking about
6 cementing when this gentleman here has not been
7 qualified as an expert in cementing.

8 MS. KARIS:

9 Mr. Dykes, I'm going directly to
10 the comment he made in this report in the very
11 next sentence, which is his opinion in his
12 report.

13 MR. DYKES:

14 She's talking to the report. I
15 will allow the question.

16 MS. KARIS:

17 Thank you.

18 MR. GODWIN:

19 And she just said, sir, that he

20 just said that it's inconclusive.

21 MR. DYKES:

22 It's on the record.

23 MR. GODWIN:

24 Thank you.

25 THE WITNESS:

ASSOCIATED COURT REPORTERS

1 It's in the report. It says that.

2 MR. DYKES:

3 It's in the report.

4 MR. GODWIN:

5 Thank you, sir.

6 MR. DYKES:

7 It's in the report. This is a fact

8 finding hearing. We're taking all the evidence

9 in, and we will evaluate it as such.

10 BY MS. KARIS:

11 Q. Dr. Smith, did you further find in your

12 report as part of the very same paragraph, next

13 sentence: None of the indications of an

14 inadequate cement job, loss returns, cement

15 channeling, or failure of equipment cited in 30

16 CFR Part 250.428 (C)

17 mandated further cement evaluation were evident.

18 Did I read that correctly?

19 A. Yes, ma'am. You need to recognize
20 that's in the context of these things that
21 happened in a very short period of time, not in
22 the context of the entire cement job.

23 Q. Understood. And I want to focus on that
24 short period of time that you looked at and that
25 you evaluated. Based on the information that

ASSOCIATED COURT REPORTERS

1 you looked at for that specific cement job, you
2 did not see any loss returns, you did not see
3 any --

4 A. That's not exactly true. What it says
5 is that there were apparent about four to five
6 barrels loss returns, as I recall; that the
7 losses were too significant -- They were too
8 small to be an accurate number in terms of the
9 measuring systems that we have, and if they were
10 really that small, they were too small to affect
11 the quality of the job.

12 Q. Fair enough. And based on the
13 information that you saw, and that four barrel
14 loss return, it was your opinion in this report
15 that none of those indicators mandated further
16 cement evaluation; is that correct?

17 A. None --

18 Q. Again, referring to your report, Page

19 16.

20 A. None of those indicators met these
21 qualifications in the CFR for mandating further
22 cement evaluation.

23 Q. Fair enough. And so is it consistent
24 with your opinion then that based on the data
25 that you saw as part of this contract under that

ASSOCIATED COURT REPORTERS

1 CFR you did not see that a cement bond log was
2 mandated here?

3 A. That's correct.

4 Q. Thank you. As part of your report,
5 again at Page 16, did you also evaluate the
6 sequence for the hanger seal -- for the hanging
7 of the seal?

8 A. I commented on the sequence.

9 Q. And that was part of the report that you
10 prepared for the MMS as part of these
11 proceedings; correct?

12 A. Yes, ma'am.

13 Q. Okay. Given the timing of -- First of
14 all, I should ask, do you know when the pressure
15 testing took place for the hanger seals?

16 A. Yes, ma'am.

17 Q. And is it consistent -- Is the timing
18 for when the pressure test took place in this

19 case consistent with any industry practice for
20 when, after installing hanger seals, a pressure
21 test should be conducted?

22 A. I don't believe I was able to identify
23 anything in any of the published industry
24 practices that was anywhere near that detailed.

25 Q. Okay. Am I correct that your opinion in

ASSOCIATED COURT REPORTERS

1 this case is that testing the casing after
2 cement has set continues to be a generally
3 accepted industry practice?

4 A. I believe -- Yes, that's my opinion.

5 Q. Based on the timing that you looked at
6 in this case, do you have any criticism for when
7 the pressure tests were conducted in relation to
8 when the hanger seals were set?

9 A. There's knowledge that we have in
10 industry that the longer that we wait to
11 pressure test casing or impose internal pressure
12 on the casing, the more likely it is that we'll
13 damage the cement.

14 Q. And based on the timing in this case,
15 was the practice consistent with industry
16 practices?

17 A. Yes.

18 Q. Thank you.

19 A. That doesn't mean it's a good practice.

20 It just means it's consistent with industry

21 practice.

22 Q. Okay. Do you agree at least that it's

23 consistent with industry practice?

24 A. Yes, ma'am.

25 Q. Thank you. Now, your report at Page 20

ASSOCIATED COURT REPORTERS

1 also addresses the timing of the lock-down

2 sleeve; is that correct?

3 A. Yes, ma'am.

4 Q. Were you able to find any industry

5 practice for when the lock-down sleeve should be

6 run?

7 A. No, ma'am.

8 Q. Were you able to identify any MMS

9 regulations for the timing of when a lock-down

10 sleeve should be run?

11 A. Not at that point in time.

12 Q. And do you know whether the MMS is

13 required to approve the timing or sequence for a

14 lock-down sleeve?

15 A. I don't know.

16 Q. Do you know whether in this case the MMS

17 approved the sequence and timing for the

18 installation of the lock-down sleeve?

19 A. Yes. It's in the APM dated 16 April.

20 Q. So would you agree with me that the MMS

21 was aware of and approved the timing for when

22 the lock-down sleeve was going to be installed

23 in this case?

24 A. That's my understanding.

25 Q. And that application also identified to

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1 what level there would be sea water displacement
2 that is down to eighty-three sixty-seven before
3 the lock-down sleeve was installed; correct?

4 A. That's correct.

5 Q. Now, you testified earlier about the
6 negative tests that you reviewed as part of the
7 work that you did in connection with this case,
8 and I want to follow up on a couple of items
9 that you addressed with respect to that negative
10 test. You have identified four negative tests,
11 I believe you said?

12 A. I see four distinct sequences, each of
13 which could be considered a test and which I
14 have called a test.

15 Q. Okay. And the data that you relied on
16 to determine the sequencing of those tests,
17 those were the daily reports, I believe, the
18 daily operations reports in part?

19 A. No, ma'am.

20 Q. Was your -- What data did you rely on to
21 determine the negative tests?

22 A. I have the -- I have the digital records
23 that you see graphical examples of in the front
24 of the room, I have the same graphical records,
25 and I have the BP presentation dated May 24th

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1 that was made to a congressional committee.

2 Q. Okay.

3 A. And what I've presumed is reasonably
4 factual on the part of BP is that what they've
5 said was data in that presentation was something
6 that they had strong factual evidence for.

7 Q. Okay. And the presentation that you're
8 talking about, is that what's titled the
9 Washington Briefing DEEPWATER HORIZON Interim
10 Incident Investigation dated May 24 of 2010?

11 A. That sounds reasonable. You know, I
12 don't have it.

13 Q. Fair enough.

14 A. I don't have it in front of me, so.

15 Q. I can give you a copy if you want, but
16 I'll represent to you that based on what's in
17 your report, that's what that document is
18 titled.

19 A. Okay.

20 Q. Now, were you aware, Doctor, that the
21 team that did the briefing concluded that there
22 were two negative pressure tests rather than
23 four?

24 A. No.

25 Q. Okay. Would you agree with me that at

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1 the end of the negative pressure tests, whether
2 there were two or four, that based on the
3 information that you have to date, the guys on
4 the crew -- that is the personnel on the crew --
5 thought that they had passed the tests or that
6 they were safe to proceed, I think is what you
7 said earlier?

8 A. There's an indication in that BP
9 presentation and it's implied. I have no -- You
10 know, there are no records from -- I was
11 provided no written records from the rig. I
12 have nothing that's evidence that I can hand to
13 you.

14 Q. Fair enough. Doctor, as part of work
15 you've done in this case, did you look at the
16 testimony of some of the people that were
17 involved in that negative test from the prior
18 hearings here before the panel?

19 A. No, I don't believe so.

20 Q. Okay. Is it fair to say then, at least
21 based on the data that you saw, you concluded
22 that the personnel on the rig thought it was
23 safe to proceed after those negative tests?

24 A. No. All I could say is that they did
25 proceed.

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1 Q. Okay. And would an indicator, to them
2 at least in reviewing those tests, for
3 concluding that it was safe to proceed be that
4 they saw zero on the kill line at the end of the
5 last test?

6 A. My presumption is that that's what they
7 used, what I would say as an excuse, from my
8 perspective, that the test was successful.

9 Q. They also saw no flow; is that correct?

10 A. Yes. The main thing is evidently that
11 there was no flow. I don't know that there's a
12 -- I'd have to look in the data to see if there
13 was actually a period that I can see where they
14 shut the well back in. I don't remember.

15 Q. Okay. And if you want to take a look at
16 your report, please feel free to do so if that
17 would help refresh your memory.

18 A. It might (referring to document).

19 Q. If I can direct you to the bottom of

20 Page 12 if that would help.

21 A. Well, I can read it, but if -- I wrote

22 it, but I don't see that I have anything in

23 there that tells me whether they closed the

24 valve at the top of the kill line back in or

25 not.

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1 Q. Do you recall whether the Washington
2 briefing had a notation on there being no flow
3 at the end of the second or last test from the
4 kill line?

5 A. I believe that's true, but I -- What I
6 have written is the implication from the BP
7 presentation is the kill line was open, left
8 open, and monitored.

9 Q. And then if you look at the bottom, if
10 in fact there was no flow from the kill line?

11 A. Right.

12 Q. The fallacy of concluding that this was
13 a successful test is explained, and alternatives
14 that would have provided a more reliable test
15 are explained in the following section and
16 analysis section. You see that?

17 A. Right.

18 Q. So is it fair to say then that the

19 indication that there was no flow, coupled with
20 the zero on the kill line, gave the personnel
21 that was on the rig the belief that they had had
22 a positive or a successful test?

23 A. That's my presumption is they made that
24 conclusion.

25 Q. Am I correct -- Is it correct, Dr.

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1 Smith, that basically what you believe happened
2 is, given the data, the quantitative data that
3 you reviewed, that the people on the rig
4 misinterpreted the results of the last negative
5 test and made a mistake with that test?

6 A. Yes.

7 MR. GORDON:

8 Well, I object to the word mistake.
9 That's -- There could be other levels of
10 conduct.

11 BY MS. KARIS:

12 Q. You talked about industry standards with
13 respect to performing a negative test. Am I
14 correct that there is no industry standard for
15 performing a negative test?

16 A. I was unable to find one in the time
17 that I had available.

18 Q. And through today, have you been able to

19 locate an industry standard for a negative test?

20 A. I have not been looking for one.

21 Q. Are you aware of any procedures or

22 standards that assist with interpreting negative

23 test results?

24 A. Certainly there's this very clear

25 example in one of the cementing books that would

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1 do that.

2 Q. Are you aware of any regulations or API
3 standards that assist with interpreting negative
4 test results?

5 A. No, ma'am.

6 Q. Now, you testified earlier, I believe,
7 at least that I heard you say, that while
8 there's no industry standards, you believe that
9 the standard practice was not followed here; is
10 that correct?

11 A. That's correct.

12 Q. Okay. Can you tell me what about the
13 standard practice you don't believe was
14 followed?

15 A. If you're -- If you're conducting an
16 operation and you begin the operation with
17 conditions that are different than what would
18 have been expected, it would be logical to

19 correct those conditions before you continue.
20 Now we're getting into engineering judgment as
21 to what the corrections should be. I see no
22 evidence that there were -- with -- with the
23 exception of this final test that they were
24 going to test on the kill line -- that there was
25 any logical attempt to make a correction and

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1 that, in fact, was not a logical attempt in and
2 of itself.

3 Q. The attempt that was made that you saw
4 was conducting another negative test; is that
5 correct?

6 A. Right.

7 Q. And that's the negative test that showed
8 zero pressure on the kill line and no flow?

9 A. I would have to go look in the data to
10 say zero pressure. I don't see that in my
11 notes, and I don't recall.

12 Q. Fair enough. Now, I want --

13 A. There's no way for me to verify no flow.
14 No flow is interpretation from that BP
15 presentation, you know, because they're not
16 flowing something where they're measuring
17 anything.

18 Q. Fair enough. The BP presentation that

19 you referenced, does that presentation, if you
20 remember, indicate that based on that team's
21 investigation they concluded no flow from the
22 kill line at the end of the last negative test?
23 A. I'm sorry. I didn't get the question.
24 Q. I'm sorry. That was complicated. I
25 apologize. The BP presentation, do you know

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1 whether, based on their analysis, their
2 conclusion was there was no flow at the end of
3 the second or the last negative test?

4 A. I believe that's correct.

5 Q. I want to walk through the chronology
6 you talked about earlier, the sequence of how
7 things happened here. When did the second
8 negative test -- That is what you're calling the
9 second negative test -- when was that completed?

10 A. Roughly 1750.

11 Q. And at the end of that negative test,
12 was there -- Do you have any information that
13 anybody on the rig knew that the well -- That
14 there were issues with the well and that the
15 well had started to flow?

16 A. That -- No. The only -- The only thing
17 that I've used as an indication of what people
18 on the rig may have known were these things that

19 were called data in that BP presentation. Now,
20 there's no -- There's no official records from
21 the BP daily reports or the Transocean daily
22 reports that go that far in time.

23 Q. And based on your review of the data and
24 information in this case, when do you believe
25 somebody should have detected that the well was

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1 starting to flow?

2 A. I would draw a distinction between the
3 well starting to flow and -- which we've talked

4 about as being this thing that occurred at 2100

5 hours when it's clearly flowing -- Well, when

6 the data -- The evidence from the data is it's

7 clearly flowing continuously in a leak. You

8 know, the leak is due to formation fluids

9 flowing into the well somehow. So there is --

10 There is evidence of flow, and the first kind of

11 after-the-fact evidence is this pressure spike

12 that they get when they open the IDOP.

13 Q. And do you know approximately what time

14 that is?

15 A. That's roughly 1755.

16 Q. And that's the first indication you

17 believe of evidence of some flow?

18 A. That there had been flow that caused

19 that pressure.

20 Q. Now, when, based on the information that
21 you reviewed, do you believe anybody on the rig
22 recognized that there was flow here, or that
23 they had taken in a kick?

24 A. Oh, probably at that last yellow mark up
25 there is presumably about 2130 is when there

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1 were actions taken to react to an apparent kick
2 or adjust the flow, or I don't know what they
3 observed that was wrong, but something they
4 observed they concluded was really wrong
5 evidently at that point.

6 Q. Now, at 2130 do you know what actions
7 any of -- First of all, do you know at 2130 who
8 would have witnessed that there's flow coming
9 back and that they've taken a kick?

10 A. No.

11 Q. Given what the -- Do you know what the
12 operations were at that time?

13 A. Yes, ma'am.

14 Q. What were the operations?

15 A. The operations were -- Again, this is as
16 reported in the BP presentation. There's no
17 reports -- no formal reports to do this -- that
18 they were displacing this spacer fluid

19 overboard.

20 Q. And who would be the people involved in
21 displacing the fluid overboard when there should
22 be this recognition that they've taken a kick?

23 A. Well, there's going to be a rig crew,
24 and they're the people that are operating the
25 rig, and there's going to be people that are

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1 their supervisors, including the BP people, that
2 are responsible for the operation, and I wasn't
3 there, so I don't know the answer to your
4 question.

5 Q. Do you know who from the rig crew was on
6 site at about 2130?

7 A. No, ma'am.

8 Q. And do you know whether anybody from BP
9 was on site at 2130?

10 A. No, ma'am.

11 Q. Given what the operations were that were
12 taking place, would you agree that a driller
13 needed to be present?

14 A. Presumably there would be a driller or
15 an assistant driller present. The driller is
16 the person who's present a hundred percent of
17 the time. He's still human. You know, he still
18 has things that he has to do briefly.

19 Q. And do you know what -- what is the

20 function of a driller?

21 A. A driller's responsible for the active

22 operation of the rig.

23 Q. And would a toolpusher have also been

24 present during this operation when somebody

25 should have realized that they were taking in a

ASSOCIATED COURT REPORTERS

1 kick?

2 A. I think you're asking me to make
3 judgments that don't belong in this discussion.

4 Q. Fair enough. Given what the operations
5 were at 2130, do you know whether a toolpusher
6 would have been present for those operations?

7 A. No.

8 MR. MATHEWS:

9 I don't think he was on the rig or
10 has any idea who was doing what or where they
11 were, to I'd refrain from asking those type of
12 questions if we can.

13 MS. KARIS:

14 Fair enough. I thought that the
15 operations that he carried through in his report
16 that identified what was taking place, give him
17 an indication of what was taking place, given
18 his familiarity with drilling operations to

19 match those up. But I can move on.

20 MR. DYKES:

21 The main thing here is he doesn't

22 know what management structure Transocean had on

23 the rig, much less what the management structure

24 of BP was on the rig. He can speak to the

25 operation, but as far as who should be there, I

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1 don't think that he can speak to that

2 MR. MATHEWS:

3 And one of the things of the Board

4 is we're not trying to point blame at anyone.

5 We're trying to find out the root cause of what

6 happened and prevent it from happening again.

7 So if we could refrain from getting Dr. Smith to

8 try to point blame at someone, we'd appreciate

9 that.

10 MS. KARIS:

11 And I certainly wasn't trying to

12 have him point blame as opposed to he had

13 testified, I believe, earlier that it should

14 have been recognized at that point and action

15 should have been taken, and I was trying to

16 understand if he had an opinion as to who should

17 have taken action, given his prior testimony.

18 Maybe I can ask a broader question.

19 BY MS. KARIS:

20 Q. Given your belief, Dr. Smith, that
21 action should have been taken, and the work that
22 you've done in this case, do you know who should
23 have taken that action?

24 A. I am not familiar with how Transocean
25 distinguishes between drillers' responsibilities

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1 and toolpushers' responsibilities. I'm not
2 familiar with how you, BP, confirmed that those
3 responsibilities were being met.

4 Q. Fair enough. Is it fair so say that
5 anybody that's present for the operations,
6 regardless of whether they're Transocean or BP
7 would recognize or should recognize that a kick
8 is being taken?

9 A. Generally trained rig site personnel all
10 the way to the floor hands have been trained and
11 practiced in detecting the warning signs of
12 kicks. We've already talked about some of this.
13 The two key warning signs for kicks were both
14 defeated during the period of time you're
15 discussing now. That means that the things that
16 people have been trained to do, they don't have
17 the evidence -- they don't have the data to
18 react to that training. Once -- Once that flow

19 was bypassed -- the blowout sensor, the blowout
20 meter, it's not going to the pits. Neither one
21 of those two indicators are available at all.

22 Q. Do you know whether you can pass --
23 bypass the flow meters on this rig?

24 A. I don't know. I don't know that you
25 can. I know that there's certainly evidence

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1 that it happened on multiple occasions.

2 Q. And if the prior testimony in this case
3 was that you cannot bypass those flow meters,
4 would you have any basis for disagreeing with
5 that?

6 A. Now, there's period of times there when
7 there's obviously fluids going overboard.
8 There's -- It's obvious that there's nothing
9 showing going through the flow meter.

10 Q. Do you know whether the data may have
11 been recorded elsewhere?

12 A. It's possible. I don't know what the
13 data collection systems were on the rig.

14 Q. Fair enough. Now, once a kick is
15 recognized at whatever point, what is the action
16 that should be taken?

17 A. The general actions are you detect the
18 evidence of a kick, you confirm it with a flow

19 check. If the well's flowing, you close it
20 through the appropriate blowout preventer
21 component.

22 Q. And did you look in this case to
23 determine what actions were taken at any point
24 in the evening when a kick was recognized?

25 A. Well, the only evidence there is that a

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1 kick was recognized is when they turned the
2 pumps off at the end of that yellow period, and
3 I see pressure is beginning to increase fairly
4 quickly there on three different occasions,
5 which means they were probably closing some
6 blowout preventer components.

7 Q. First can you tell me at what time you
8 believe somebody recognized there was a kick
9 taken? I'm not sure which yellow line you're
10 referring to.

11 A. Okay. So right here is where they
12 turned the pumps off. It's about 2130, I think.

13 Q. Okay. So that would have been at 9:30
14 in the evening; is that correct?

15 A. Sounds reasonable.

16 Q. Okay. And from 9:30 do you know -- to
17 9:56 do you know what, if any, actions were
18 taken with respect to getting this well under

19 control?

20 A. I know there were some actions that have

21 been reported. There's no -- There's

22 essentially nothing in the records that I was

23 given that say what those actions are. All I

24 could see is that there's these periods of

25 pressures increasing and decreasing that implies

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1 that someone was doing something.

2 Q. Now, you --

3 A. Pressures increase when you close a

4 blowout preventer.

5 Q. Now, you said pressures increase when

6 you close a blowout preventer. Do you have any

7 evidence that anybody activated the blowout

8 preventer here?

9 A. Not in the data that I have, no, ma'am.

10 Q. Do you know whether instead the mud gas

11 diverters were activated?

12 A. No. There are -- There are comments to

13 those effects in that presentation, but I don't

14 know that those are conclusive.

15 Q. Would you agree with me that as part of

16 well control operations, before you get to the

17 point where you have to divert through the mud

18 gas diverters that you should have closed the

19 BOP, or at least tried to close the BOP?

20 A. I would say in circumstances like that
21 you would be doing both at approximately the
22 same time.

23 Q. But you would at least be trying to
24 close the BOP; is that correct?

25 A. The BOP is what's required to stop flow

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1 from a well.

2 Q. And have you evaluated whether or not
3 the BOP In this case worked, or was that beyond
4 the scope of what you did?

5 A. It's beyond the scope, and beyond the
6 scope of what you could prove from the data.

7 Q. Captain, if I can have just one second
8 to step back to my table. I'll be right back.

9 Thank you.

10 Dr. Smith, just a couple more questions
11 for you. You referenced that one of the sources
12 for the data that you looked at was the interim
13 investigation report submitted to Congress on
14 May 24th of 2010 by BP's investigation team;
15 correct?

16 A. Yes, ma'am.

17 Q. Do you know how that report was
18 prepared?

19 A. No, ma'am.

20 Q. Are you aware that that report says that

21 it's a draft in progress?

22 A. Yes, ma'am.

23 Q. And are you aware that the report right

24 up front says it's subject to revisions?

25 A. Sure.

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1 Q. And you agree that the report also says
2 that not all of the information in that report
3 has been verified and corroborated?

4 A. Right.

5 Q. Did you do anything to corroborate the
6 data or information in that report that you
7 relied on other than looking at the data we just
8 talked about?

9 A. No, ma'am.

10 Q. Would you agree with me, Doctor, that if
11 the information in the May 24th, 2010 report
12 changes, that may be a reason for you to change
13 your opinions as well in connection with these
14 well operations?

15 A. Yes, ma'am. I think I've said already
16 if there's -- if there's positive evidence
17 explaining what happened at some point in time,
18 then that needs to be compared to this -- to

19 this quantitative data to make sure that that is
20 consistent and makes sense. But there's -- Just
21 like the lights change. Why did the lights
22 change? All I know is that the lights changed.
23 I don't know whether somebody turned a knob or
24 whether there was a power fluctuation or what
25 else.

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1 Q. Fair enough. And you have not attempted
2 to determine here what caused this blow out; is
3 that correct?

4 A. Only to the -- well, only to the extent
5 the barriers that were available were
6 unsuccessful. Did not work.

7 Q. But you didn't evaluate which of the
8 barriers that were available may or may not have
9 worked; is that --

10 A. They all -- The three barriers that were
11 potentially available, the cement that was
12 supposed to be sealing the productive
13 formations, the casing system that's supposed to
14 keep pressure outside the well, and the BOP
15 stack that's supposed to be able to shut in the
16 well, none of those things successfully
17 fulfilled their mission at this point in time at
18 the end of the day when the blow out occurred.

19 Q. Doctor, you would agree that you've
20 identified those as potential failure modes; is
21 that correct?

22 A. I think they're -- No. I think
23 they're -- They're -- No, that's not correct.
24 They didn't work. They're not potential. Now,
25 the details of what failed in the casing I think

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1 is still an unknown, but none of those three
2 things worked.

3 Q. Did you evaluate the details of the
4 casing design?

5 A. No, ma'am.

6 Q. And did you evaluate the details of the
7 cement shop?

8 A. No, ma'am.

9 Q. And did you evaluate the details of flow
10 collar equipment?

11 A. No, ma'am.

12 Q. And did you evaluate the details of the
13 casing hanger?

14 A. No, ma'am.

15 Q. Do you know whether the pack off was
16 what failed?

17 A. No, ma'am.

18 Q. Do now whether the flow is coming off

19 the annulus outside of the well blower or --

20 excuse me -- whether it's coming up the annulus

21 outside of the casing or whether it's actually

22 flowing inside?

23 A. No, ma'am.

24 Q. So is it correct to say you have not

25 evaluated what actually failed here and where

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1 the flow is coming from?

2 A. It's fair to say that I have not
3 evaluated what the failure in the casing system
4 was. It's obvious that the primary cement job
5 did not work. It's obvious that the BOP stack
6 closure was not successful, if in fact it was
7 closed. And it's obvious there's some failure
8 in the casing system somewhere.

9 Q. Is it correct, Doctor, that you've
10 reached whatever opinions you've reached without
11 reviewing any of the testimony of the people
12 that were on the rig on April 20th?

13 A. I did not review the testimony as part
14 of my analysis. I have looked at some of the
15 testimonies.

16 Q. And you didn't review any of the
17 statements given to the Coast Guard; is that
18 correct?

19 A. Not in detail for this analysis, no

20 ma'am.

21 Q. And you didn't review any of the

22 documents that were produced by any of the

23 Parties in Interest in this case?

24 MR. MATHEWS:

25 Just for clarification, do you know

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1 what documents she's referring to that -- the
2 Coast Guard documents?

3 THE WITNESS:

4 No.

5 MR. MATHEWS:

6 The written statements taken on
7 board the DAVID BANKSTON?

8 THE WITNESS:

9 No, I didn't. If it's something --
10 If it's something in the transcripts that's on
11 the website, have I looked at some of those?
12 Yes. Have I studied them in detail, tried to
13 make them fit in with this data? No.

14 BY MS. KARIS:

15 Q. And just so I'm clear, I want to make
16 sure I'm clear, as part of these proceedings the
17 parties have produced various documents that
18 we've used as exhibits in these proceedings.

19 Have you looked at those documents?

20 A. I don't believe so. I mean there's --
21 there are things that have been posted on the
22 website, and some of those things I have looked
23 at. If it's not something that's posted on the
24 website, I have had no access to it.

25 MR. DYKES:

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1 The only thing provided to Dr.
2 Smith was the Sperry Sun data obtained from BP,
3 and we gave that to him in digital format. We
4 also gave him the IADC reports and the BP daily
5 operations reports.

6 BY MS. KARIS:

7 Q. And your review and analysis is limited
8 to the documents that Mr. Dykes just identified;
9 is that correct?

10 A. Those things plus supplementing with
11 this one presentation that was -- I needed
12 something to put the data in context for this
13 period where the reports ended.

14 Q. And just so I'm clear, all your opinions
15 are based on that limited set of dates -- set of
16 data; is that correct?

17 A. Yes, ma'am.

18 Q. Thank you.

19 CAPT NGUYEN:

20 Thank you very much.

21 Transocean.

22 EXAMINATION

23 BY MR. KOHNKE:

24 Q. Hello, Dr. Smith. Dr. Smith, I want to

25 ask you about the scope of your report. Was it

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1 your decision, your choice to only look at the
2 24-hour window that you looked at, or was that
3 someone else's choice?

4 A. That was what I was hired to do.

5 Q. Okay. If one were going to undertake to
6 find the cause of this -- this blow out, one
7 would certainly go beyond the 24 hours that
8 preceded it.

9 A. Yes, sir.

10 Q. Why -- If you know, why were you only
11 given a 24-hour peephole to look through it? I
12 guess you're looking over at that end of the
13 table.

14 A. Well, yeah, that's what was hard to do,
15 okay, and I'm presuming that there's dozens, if
16 not hundreds of people trying to put this story
17 together, so it didn't seem strange at all to me
18 that I have a very limited piece that I'm being

19 asked to look at, and I think the key thing was
20 the decision making during this 24-hour period,
21 and this is obviously a critical period. Are
22 there things during this period that are
23 important. That's what I was asked to find.

24 Q. And I don't in any way mean to demean
25 the importance of those 24 hours, but would it

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1 be equally important to look at the things like
2 the well design?

3 CAPT NGUYEN:

4 Dr. Smith, you know, we have our
5 investigative strategy. I'm not telling -- Mr.
6 Kohnke's is trying to get through you to answer
7 those questions. We asked you to look at
8 24-hour period for a specific reason, and that's
9 for us to know, and that's it.

10 THE WITNESS:

11 Okay.

12 MR. KOHNKE:

13 I wasn't aware that you had a
14 strategy. I thought it was finding the cause of
15 the accident. That's why I'm asking these
16 questions.

17 BY MR. KOHNKE:

18 Q. So my question is if one were going to

19 determine what else is important, the well
20 design issues, those would be important too,
21 would they not?
22 A. I would say as a drilling engineer who
23 did many well designs, yes, that's an important
24 part of the story, to start out with a good
25 plan.

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1 Q. And I'm not going to belabor the point,
2 but you listed just right at the end of Ms.
3 Karis' examination -- You listed all the things
4 that you have not looked at. Those would all be
5 important to look at to determine the cause of
6 this, would they not?

7 A. I think all the rest of y'all who are
8 looking at the problem have access to the
9 problem on a bigger scale than I do. You have a
10 better sense of what's important and what's not.

11 Q. One of the things that you relied upon,
12 I believe, if I heard your testimony correctly,
13 was the 24 May report that BP made to the House
14 Subcommittee, I believe it is. The
15 Waxman-Stupak Subcommittee; is that correct?
16 Well, maybe it wasn't to them, but I'm holding
17 it up. Does this look familiar to you?

18 A. Yes, that looks like the same thing. If

19 it says 24 May, that's what we've been talking

20 about.

21 Q. Do you have a copy of it with you? If

22 not, I have an extra copy with me.

23 A. No, I don't have a paper copy.

24 Q. One moment, please. Now, as you -- Ms.

25 Karis asked you right before she sat down, this

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1 is a draft. It says on the top "Draft, Work in
2 Progress, Subject to Revision;" is that correct?

3 A. Yes, sir.

4 Q. In your report at Page 2, referring to
5 this same document, you indicate that this is
6 the principal document used by you; is that
7 correct?

8 A. I probably say it's the principal one I
9 used to try to have some way of knowing what the
10 attempted operations were during this time
11 period when the formal records don't exist.

12 Q. So the principal document you used was a
13 draft, work in progress, subject to revision,
14 that was your principal document?

15 A. For this -- For this time period from
16 about 1600 hours to the end, yes.

17 Q. Okay. Let me show you --

18 A. It's -- It's the only document that I

19 know of that I found was in the public domain
20 that gives any indication of what the operations
21 might have been; otherwise, I'm just looking at
22 data with no explanation at all.

23 Q. Okay. The date of this document was of
24 course 24 May; is that correct?

25 A. Yes, sir.

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1 Q. And it's presented to -- as you know, to
2 an investigative committee, and I'll tell you
3 now it's the Waxman-Stupac Committee. Let me
4 hand you a letter (exhibiting document to
5 witness) that followed that document. It's a BP
6 letter signed by Mr. Bligh, and it's to Senator
7 Waxman and Representative Stupak signed by Mark
8 Bligh, BP, and it's dated two days after this
9 draft.

10 A. Right.

11 Q. The letter is dated May 26; is that
12 correct?

13 A. Yes, sir.

14 Q. And if you look at that letter, you will
15 see in the second paragraph that BP is saying
16 about this draft, "We have drawn no conclusions
17 at this point, preliminary or otherwise, because
18 our investigation is ongoing, and we have not

19 had access to certain key pieces of evidence
20 that might enable us to make conclusions." Did
21 you use this document nonetheless to make
22 conclusions of your own?
23 A. I used what they referred to as data,
24 not their analysis or their interpretation, but
25 what they referred to as data on the

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1 presentations as the indicator of what they
2 believed the operations were that I was trying
3 to match the data, the quantitative data to.

4 Q. One of the things that I heard you
5 testify to in answer to the Committee's
6 questions -- to the Board's questions, you
7 talked about some information that you derived
8 that came from a cementer. Do you recall that
9 testimony? About the well flowing.

10 A. There's -- there is --

11 Q. It's in your report.

12 A. Yes. There is in the BP thing there are
13 these places where they talk about someone
14 reporting that there was a return flow; that
15 there's no evidence for that return flow in the
16 quantitative data.

17 Q. And if you'll turn to Page 11 of your
18 report, please, I think you make reference to it

19 right there, do you not? In the second to last
20 paragraph. You say, "However" -- You're talking
21 about interpretation of the BP presentation.

22 A. Yeah.

23 Q. And then you say, "However, a
24 significant volume of flowback was apparently
25 collaborated" -- I think you meant -- You didn't

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1 mean it. Whoever typed it meant to say

2 corroborated there. "...corroborated

3 by" --

4 A. I typed it.

5 Q. You typed it?

6 A. And corroborated is the word.

7 Q. And I think you know the difference, and

8 I'm not suggesting otherwise, but it says,

9 quote, and you use quotes, cementer witness

10 statement that well continued to flow and

11 spurted, close quote, but your words, not in

12 quote -- So, in other words, these are your

13 words -- were significant volume. Is that your

14 words that precedes that quote?

15 A. Yes.

16 Q. Okay.

17 A. What follows that quote is, "However,

18 there is nothing conclusive in the presentation

19 or the review data to confirm this or to

20 indicate whether fluids were bled."

21 Q. And your -- Use of your interpretation

22 significant volume came from the BP draft report

23 of March -- of May 24, correct?

24 A. Significant volume of flowback apparent.

25 Q. Yeah.

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1 A. And then --

2 Q. If you turn to Page --

3 A. And apparently corroborate --

4 Q. Turn to Page 26 of that BP report,

5 please.

6 A. Sure. Okay.

7 Q. You'll see on Page 26 that's where the

8 statement is about the cementer; correct?

9 A. Yes.

10 Q. Two days later BP wanted to clarify that

11 statement, and they sent that letter of May 26

12 that you have in front of you --

13 A. Okay.

14 Q. -- and they set out on Page 2, middle of

15 the page, they made the quote that you used,

16 quote, a witness -- cementer witness stated that

17 the well continued to flow and spurted, and Mr.

18 Bligh then corrected that by saying, at the last

19 line you'll see the interview, he did not say

20 that he observed the well flowing.

21 A. Okay.

22 Q. Well, that's the correct version from

23 BP, but you called it a significant volume in

24 your report. That's a disconnect; isn't there?

25 A. Well, there's -- There's two different

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1 facts -- Well, they're not facts. They're
2 called interpretations that they're talking
3 about here.

4 Q. And that's --

5 A. I said those two interpretations
6 corroborate each other. This would say that the
7 second statement does not corroborate the first
8 statement.

9 Q. And here's the problem. You're using an
10 interpretation that is a draft interpretation,
11 and you're using it as your, quote, principal
12 document.

13 A. No, no, no, no, no.

14 Q. That's what your words say.

15 A. No.

16 Q. They don't say --

17 A. No. You're taking it out of context,
18 and you're explicitly taking it out of context.

19 Q. All right.

20 A. The next sentence says, "There's no
21 evidence in the data to confirm those things."

22 Q. So we're reaching the same conclusions.

23 CAPT NGUYEN:

24 Mr. Kohnke, may I interrupt a
25 minute. From what I see, you're trying to prove

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1 the validity of his report; is that correct?

2 That is your line of questioning?

3 MR. KOHNKE:

4 No, sir.

5 CAPT NGUYEN:

6 Just for your information and the

7 audience's information, MMS has contracted Dr.

8 Smith to evaluate, you know, based on

9 information that MMS provided to Dr. Smith. We

10 have not accepted his work. I mean he's

11 provided to us, we're still evaluating it as an

12 independent analysis. So I just want to make

13 sure it's clear that we have not accepted his

14 report in its entirety, so I want to make sure

15 that -- Maybe I'm wrong, but I just want to make

16 sure.

17 MR. KOHNKE:

18 That's not at all clear. I would

19 have drawn the opposite conclusion, that that's
20 why we're here today, to learn these opinions.
21 Are you suggesting that these opinions are not
22 accepted by the Board?

23 CAPT NGUYEN:

24 Mr. Dykes, you want to speak to
25 that, I think?

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1 MR. DYKES:

2 We're hearing the opinion from Dr.

3 Smith just as you all are.

4 MR. KOHNKE:

5 I didn't retain him. You did.

6 MR. DYKES:

7 We retained him.

8 MR. KOHNKE:

9 Okay.

10 MR. DYKES:

11 The interesting part about it is we
12 can't present our own conclusions, so we have to
13 have somebody else look at the data like we do
14 independently and see if our conclusions or our
15 interpretation of the data is out of wack, out
16 of the ballpark.

17 So we gave him the data, told him
18 to look at the last 24 hours with all of the

19 Sperry Sun data from BP and match that up with
20 everything in IADC reports and make sure
21 everything supports each other so that there was
22 no -- make sure that we're seeing everything
23 that the rig personal were seeing at that time.
24 To match up the time sequence and the whole nine
25 yards there, and that's what he has presented a

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1 report to. And through that --

2 MR. KOHNKE:

3 For a 24-hour period.

4 MR. DYKES:

5 For the 24-hour period. Now, the

6 unique thing about it, I don't think that was

7 stated early on when I was out of the room

8 taking care of some other things, when he took

9 this, he did not have the last, what, hours up

10 to the time that the -- We don't have the IADC

11 report for the last -- He's beat that. Okay.

12 So that's one reason that he went and looked

13 outside of the data that we gave him, to look to

14 see if he could find any rationale from the

15 morning of 06:00 a.m. on the 20th up until the

16 point that the rig exploded.

17 MR. KOHNKE:

18 I understand.

19 BY MR. KOHNKE:

20 Q. And, Dr. Smith, by way -- if I may make
21 an explanation, up until this moment we've never
22 confined ourselves to 24 hours. We looked at
23 the whole event, and so it's hard to shift
24 gears, at least for the parties, at least for
25 this party. It's sometimes difficult to shift

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1 gears, and I don't mean to put you in an
2 uncomfortable position.

3 Okay. Let me get back to --

4 MR. GOODWIN:

5 Let me say that my position on it
6 is that I would obviously prefer not having to
7 examine the witness. There has been no
8 showing -- Is this thing on? There's been no
9 showing, in my opinion, that the witness is
10 qualified as an expert in the planning and
11 designing of cement jobs. In fact, he says on
12 Page 15 of the report that the plan or design of
13 the cement job has already been critiqued in
14 published hearing statements, and an analysis of
15 the plan is outside the scope of this review.

16 If this witness is not being tendered
17 and offered as an expert, as a cementing expert
18 on planning and design of cement jobs, then

19 that's going to significantly limit any
20 questions that I might have to zero; likewise --
21 Likewise -- Yeah, I appreciate that, Doctor --
22 Likewise, I would suggest to you -- Likewise, I
23 would suggest that there has been no predicate
24 laid, no foundation laid that he's an expert in
25 execution of a cement plan or design whatsoever.

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1 He's not offered that. You've heard what he
2 said earlier, and I respect that, and I do know
3 of his qualifications from other people that are
4 cement experts in the area, and they do not
5 believe that he's an expert in the execution of
6 the planning and design of a cement plan.

7 If the panel will tell me that he
8 has not been tendered here today as an expert in
9 either the planning or design and/or execution
10 of a cement job, then I'll sit quietly by and
11 have nothing further to say.

12 Now, if you'll tell me that and if
13 his opinions here are not expert opinions as
14 they relate to the planning and design of a
15 cement job or the execution, I'll have nothing
16 to say. That's my objection, Captain.

17 MR. DYKES:

18 You are correct in that, Mr.

19 Godwin.

20 MR. GODWIN:

21 Thank you, sir, and I'll --

22 MR. DYKES:

23 He was tendered strictly to look at
24 the data from Sperry Sun, match those up to
25 events as we know that they occurred in IADC

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1 report up until the point that we have no other
2 records, and he was trying to match up
3 everything else with what he could get from
4 outside the Board.

5 MR. GORDON:

6 Just because he doesn't ask a
7 question, can we ask a question?

8 MR. DYKES:

9 Yes.

10 MR. McCARROLL:

11 If I may comment -- If I may
12 comment. Part of the problem here is the
13 sensitivity issue, but the people who could
14 testify are no longer here, so we're trying to
15 construct something with very few witnesses. So
16 that's why the 24-hour period was selected.

17 MR. KOHNKE:

18 I understand. And, Mr. McCARROLL,

19 I will tell you that everyone in here that has
20 been up at this podium is a lawyer, and what
21 lawyers are so used to doing is to having a
22 complete factual record before we get to this
23 stage, and that's part of the problem that we're
24 having. And so I understand what you're trying
25 to do, but I hope you understand what we're used

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1 to doing. Okay. Thank you.

2 BY MR. KOHNKE:

3 Q. Let me ask you about the spacer that you
4 have talked about in your report and in your
5 testimony. In your report you referred to it as
6 a major departure; did you not? It's on Page
7 18.

8 A. Well, let's look at what the ABM says.
9 On Page 18?

10 Q. Yes, sir. In the third paragraph you
11 say, quote, a major departure from the approved
12 procedure is pumping 454 barrels of 16-pound per
13 gallon LCM spacer.

14 A. Yes, sir. There's nothing about a
15 spacer in the procedure.

16 Q. All right. Well, that's why I'm asking.
17 You use the words "a major departure from the
18 approved procedure," and you're saying there's

19 nothing in the procedure about that?

20 A. Right.

21 Q. So what you're really talking about, I

22 believe, and that's why I'm getting to this

23 point, it's a departure from the normal industry

24 practice or the standard to use a spacer that

25 size and that type?

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1 MR. GODFREY:

2 Excuse me, sir.

3 Mr. Dykes, that is way beyond the
4 scope of his report and beyond the scope of the
5 documents that have been provided to him and
6 data that he has reviewed, so I'll object to
7 that question.

8 MR. KOHNKE:

9 And I'll withdraw it if you
10 determine that there is no basis for the
11 opinions that have been expressed about the
12 spacer, but if we're going to have opinions
13 about the spacer, I'd like to be able to
14 cross-examine him. It's in the report and
15 that's why I'm doing it.

16 MR. GODFREY:

17 It was a departure from the ABM.
18 That is not the same question that was just

19 asked. That is whether the spacer was a
20 departure from the standard of industry
21 practice. The report has no opinion as to the
22 propriety of the spacer one way or the other.
23 BY MR. KOHNKE:
24 Q. Let me then put that aside and just ask
25 you this. Have you in your experience used an

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1 LCM spacer of that size, 454 barrels?

2 A. I don't believe so, no. There's -- Like

3 I've already referenced, there's an SBE paper

4 you can go backtrack with me as an author where

5 we're doing something roughly similar, and one

6 of the spacers was a spacer that had sand in it

7 I think instead of LCM material, but I don't

8 know what this LCM material was, so.

9 Q. The testimony has been that it was

10 comprised of Forma Set and Forma Squeeze. Are

11 you familiar with those products?

12 A. No, not really.

13 Q. Okay. Is the volume 454 a standard

14 volume or is that rather large in your

15 experience?

16 A. It's large, and I assume it's large

17 because the riser is large and it fits up.

18 Q. It's also a dense spacer, and I think

19 that's the word you used, dense?

20 A. Yes.

21 Q. Okay. And that's -- The size of the

22 spacer and density of the spacer implicated the

23 negative tests, and you talk about that in your

24 report, do you not?

25 A. Yes, sir.

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1 Q. Okay. It confused the outcome, I think,
2 to get down to the bottom line, you believe that
3 the reading on the -- the zero reading on the
4 kill line may well have been influenced by the
5 presence of the spacer, correct?

6 A. Almost certainly.

7 Q. All right. Let me hand to you a
8 document. It's -- I'm going to read a number
9 for the record, Doctor, BPHZNIIT0002198
10 (exhibiting document to witness).

11 UNIDENTIFIED SPEAKER:

12 Mr. Dykes, if I may, the problem
13 that we have here is that we start showing this
14 witness new documents, new data that he has not
15 reviewed prior to today and then asking him to
16 comment on the acceptability or unacceptability
17 of the steps, procedures, documents, we're going
18 to be here all day.

19 I would ask that we limit the

20 questions to his report.

21 MR. DYKES:

22 I agree. We need to stick strictly

23 to his report and the data that he used for that

24 report.

25 MR. KOHNKE:

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1 All right. Well, Mr. Dykes, let me
2 remind you, that as a Party in Interest I have a
3 right -- it's not a gift, it's a right -- of
4 cross-examination, and the right of
5 cross-examination should be to confront a
6 witness with documents that this Board has
7 deemed relevant and made a part of the subset of
8 our documents.

9 Now, I've never heard of this rule.
10 I'm too old to learn, but in my entire life, I
11 never heard that I couldn't present a witness a
12 relevant document that's already in this record
13 and ask him a relevant question.

14 Please let me ask the question.
15 I'm not using the document to put it in. It's
16 already there. I want to use it to educate the
17 witness so he can answer my question. Period.
18 End of story.

19 UNIDENTIFIED SPEAKER:

20 Mr. Dykes, as an additional Party
21 in Interest we join in that objection. This is
22 cross-examination. You're talking about
23 affecting -- possibly affecting our rights, and
24 as such, we ought to be able to confront
25 witnesses and probe and test their opinions and

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1 not be limited to solely the documents that they
2 use.

3 UNIDENTIFIED SPEAKER:

4 Mr. Dykes, I understand that there
5 will be a time, a final session, and at that
6 time everyone will have an opportunity to
7 present experts in favor of their opinion or
8 against others, and I would -- I would propose
9 that would be the time, when we can all see the
10 reports in advance, we can review the documents,
11 we can prepare for such examination, but for --
12 It is also unfair to Parties in Interest to be
13 presented with having to deal with questions
14 that are beyond the scope of this gentleman's
15 report today.

16 MR. KOHNKE:

17 Mr. Dykes, question. Every single
18 witness who has taken that seat has been

19 presented documents that that witness didn't
20 necessarily have when he walked in. Why should
21 an expert be any different? In fact, an expert
22 ought to be subject to being cross-examined with
23 even more documents, not less. This is the rule
24 we have for all the witnesses. We show them a
25 document.

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1 CAPT NGUYEN:

2 Why don't we have that document
3 sent over here to Mr. Dykes and Mr. Mathews to
4 determine whether it's related to the scope of
5 the contract or not, and then he can hand it
6 over (inaudible).

7 MR. DYKES:

8 We'll allow the question.

9 BY MR. KOHNKE:

10 Q. Your report indicates that good practice
11 would have been to circulate the spacer out to
12 get it above the BOP; is that correct?

13 UNIDENTIFIED SPEAKER:

14 I believe that's a
15 mischaracterization of this gentleman's report.

16 CAPT NGUYEN:

17 Again, we have the right to
18 cross-examine, or whatever, but it has to

19 further the interest of this Board. So, you
20 know, please proceed that way in terms of
21 objections and cross-examination. So if it's
22 outside the scope, it's not furthering the, you
23 know, progress of this Board, you know, we need
24 to limit those things, please.

25 MR. KOHNKE:

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1 Yes.

2 BY MR. KOHNKE:

3 Q. Go ahead and answer that question,
4 please.

5 A. You'll have to ask it again.

6 Q. Sure. In reading your report, I took
7 from your report that good practice would have
8 been to circulate this spacer out to certainly
9 get it above the BOP.

10 A. That was almost undoubtedly the plan
11 based on the volumes that were pumped.

12 Q. And, indeed, that was the plan going in,
13 as you have seen from the document I showed you;
14 is that correct?

15 A. I don't remember that.

16 Q. Read Number 4 under displacement. Read
17 it out loud.

18 A. Number 4 pump 775 -- This is sea water

19 they're pumping following the spacers -- 775

20 barrels with 6150 strokes. Spacers should be

21 above the upper annular.

22 Q. That's the goal, to get the spacer above

23 the upper annular; correct?

24 A. Yes. That's logical.

25 Q. And somebody had to calculate how many

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1 strokes, how many gallons to make that happen?

2 A. The numbers are here.

3 Q. And that's the document. Thank you.

4 That's not a Transocean document, is it?

5 A. No, sir.

6 Q. It's not a Transocean decision, is it?

7 A. I have no idea.

8 CAPT NGUYEN:

9 Well, You have not seen that

10 document before, so you don't know whether it's

11 M-I SWACO or Transocean or --

12 THE WITNESS:

13 Well, it says M-I SWACO on the top

14 of it.

15 CAPT NGUYEN:

16 It can say that, but you have no

17 confirmation that it's not Transocean. That's

18 all I'm saying.

19 MR. KOHNKE:

20 We have the number at the bottom

21 that says the Board accepted it.

22 CAPT NGUYEN:

23 Well, but he's never seen it. Mr.

24 Kohnke, are you trying to say it's not

25 Transocean's document? He's never seen it so

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1 it's not fair to try to get him to confirm that.

2 That's all.

3 BY MR. KOHNKE:

4 Q. Now, you had talked about the kill line

5 and the effect of the spacer on the kill line,

6 and I believe you said -- and I was trying to

7 make notes and I just want to make sure we all

8 have this correct -- You said the kill line --

9 and I wrote down kill line safe. It was over

10 balanced. The well not flowing. And then you

11 said: So the symptoms indicated a good negative

12 test but because of the -- what you thought was

13 spacer in the kill line, in your opinion it was

14 not a good negative test. Is that a fair

15 summary of what you said?

16 A. I think that's a good summary.

17 Q. All right. So in terms of the rig crew,

18 if they don't understand the effects of this

19 spacer and what it's doing to the kill line,
20 would it be reasonable for them to assume that
21 this is a good negative test, given those
22 results?
23 A. I think that has more to do with the
24 expectations that you have for your personnel
25 than what I would have for your personnel.

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1 Q. All right. Now, you know enough about
2 the oil patch, I believe, you don't have to know
3 particulars of our crew to know that this crew
4 was all -- they were all experienced and they
5 were trained and well controlled, were they not?
6 They'd have to be.

7 A. Well, I have -- I literally have no
8 idea. There is an MMS requirement --

9 Q. Thank you.

10 A. -- that an operator have a training plan
11 that specifies that you will have a training
12 plan that they accept.

13 Q. And you had earlier referenced the fact
14 that you do not have all the facts, and there
15 could be an explanation that you don't have, and
16 until you get the facts, you can not say what
17 that explanation would be, but there were
18 several possibilities you said, I believe. You

19 said there are possibilities of other
20 explanations as to why this crew did not
21 recognize this KICK. Do you recall that
22 testimony?

23 A. I don't -- I don't believe that I recall
24 that specific statement in that context. I made
25 a statement like that in a different context.

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1 Q. Okay. But this crew could have
2 concluded from the fact that there was no flow
3 on the kill line that this was in fact a good
4 negative test? Even though you may --

5 A. In -- in -- in ignorance of law --

6 Q. Yes.

7 A. That is -- Literally what I said was an
8 excuse. The -- Who's making the judgments is
9 probably really important. Would a floorhand be
10 able to make that judgment conclusively? I
11 wouldn't use the judgment of a floorhand.

12 Q. You have a -- You have a Ph.D in
13 petroleum engineering and an electrical
14 engineering degree as well, correct?

15 A. Yes, sir.

16 Q. There aren't a whole lot of Ph.D.'s and
17 petroleum engineers working as toolpushers and
18 drillers, are there?

19 A. I'm trying to -- There have certainly

20 been some that are company men.

21 Q. Okay. And, in fact, when there is

22 confusion on the rig, typically that's what you

23 do, You turn to the company man -- it's his rig.

24 It's his well -- for that drilling that well,

25 that hole; isn't that correct?

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1 A. As a guy who only worked directly for
2 the operators, my expectation is that the
3 operator's responsible.

4 Q. The operator would be BP in this case?

5 A. Yes, sir.

6 MR. DYKES:

7 Mr. Kohnke, please stick to the
8 report, please.

9 MR. KOHNKE:

10 Okay.

11 BY MR. KOHNKE:

12 Q. Well, you indicated that there was some
13 confusion about interpreting this negative test.

14 A. No, I don't think that -- It would
15 appear. I would presume.

16 Q. There you go.

17 A. I wouldn't have done it over and over
18 and over again if there was something -- if they

19 had concluded that it was conclusive.

20 Q. Would a telephone call to an engineer in
21 Houston be the sort of thing that good industry
22 practice would dictate?

23 A. I can say it's the sort of thing that
24 the company men I worked with, if I wasn't on
25 the rig already, would have done.

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1 Q. Do you know, in fact, whether the
2 company man in this instance did exactly that,
3 called Mr. Hafle?

4 A. I have no idea.

5 Q. Let me show you an interview or notes of
6 an interview from Don Vidrine, which were made
7 on Tuesday, April 27, by some BP personnel. I'm
8 referring now to Page BPHZnMPR00021420 and ask
9 you to read what I've highlighted.

10 MS. KARIS:

11 I'm going to object to this line of
12 questioning. First all that conflicts with Mr.
13 Ezell's testimony -- I'm going to object. First
14 of all, this is beyond the scope of what I
15 understand the panel told me to limit myself to,
16 and I thought Mr. Kohnke as well. Secondly,
17 this completely misstates the testimony, the
18 sworn testimony that has been given to this

19 Board by Mr. Hafle, and so I don't think
20 that this witness who has was never read that
21 testimony or seen the interview notes, should be
22 allowed to comment or opine on what some
23 investigator wrote.

24 MR. KOHNKE:

25 Mr. Dykes, wouldn't this Board be

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1 interested to know -- because no one from this
2 Board has found this out -- that a telephone
3 call was made to Mr. Hafle during this critical
4 period, and he addressed this negative test?
5 Doesn't the Board want to know that?

6 CAPT NGUYEN:

7 But not through this witness.

8 MR. KOHNKE:

9 Okay. Well, in terms of what is
10 good practice, I think I have established
11 that -- what would be a good practice, and if
12 that good practice was followed, I think that
13 goes -- It's in line with where we're going.
14 I'm asking him, and he's here to talk about good
15 practice. I've asked whether this would be a
16 good practice. I've now shown him a document
17 find out whether that good practice was
18 followed.

19 CAPT NGUYEN:

20 I don't know what that will show.

21 I mean you asked him whether -- if the personnel

22 on the rig have questions regarding the

23 situation they were facing, whether they would

24 call back, you know, to engineers to get some

25 advice, and he said, "Yeah, that's good industry

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1 practice." And I think why show an example to
2 perform something that he already, you know,
3 agrees with you?

4 MR. KOHNKE:

5 Captain, if you can't understand
6 it, I can't explain it. It's very important to
7 this, I can tell you that, because this Board
8 has asked every sort of question about who did
9 you talk to, what did you know, when did you
10 know it. Mr. Hafle is an important witness to
11 this. His testimony is going to be critical,
12 and this is a document that establishes that
13 practice, and this witness is here to talk about
14 that practice. How could it not be more
15 important?

16 CAPT NGUYEN:

17 We may call -- You may ask us to
18 recall Mr. Hafle and ask him that, and -- but

19 this witness I don't believe is the right

20 witness for that.

21 MR. KOHNKE:

22 So I can't ask this witness whether

23 or not the good practice that he's identified

24 would be a good practice was in fact followed in

25 this case?

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1 CAPT NGUYEN:

2 But that's not his --

3 THE WITNESS:

4 I don't have any knowledge of that

5 other than the evidence that you've already got.

6 What do I add to evidence that --

7 MR. DYKES:

8 I think -- Mr. Kohnke, I think you

9 can establish that he is giving you good

10 practice, but I don't think he's the one that

11 you need to be asking whether or not Mr. Hafle

12 made a -- Mr. Vidrine made a phone call to Mr.

13 Hafle.

14 MR. KOHNKE:

15 Okay.

16 BY MR. KOHNKE:

17 Q. If, in fact --

18 MR. KOHNKE:

19 Let me get that back. I don't want
20 to lose it in case Mr. Hafle shows up.
21 BY MR. KOHNKE:
22 Q. If a phone call was made to the beach
23 and Mr. Hafle -- or Hafle -- was consulted about
24 this negative test, and if Mr. Hafle, as a
25 petroleum engineer, commenting on the presence

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1 of pressure on the -- that was being noted,
2 1400, said that, "If there had been a kick in
3 the well, we would have seen it," therefore, he
4 didn't think there was a kick, would that be
5 something that drill crew could rely upon in
6 your judgment, sir?

7 CAPT NGUYEN:

8 Dr. Smith, if you have no knowledge
9 of any of this stuff, you don't have to answer.
10 Just say -- I'm not -- You don't have legal
11 advice, but I'm just saying if these facts
12 you're not aware of, you don't have to comment
13 on it because -- because -- because the counsel
14 can enter those -- bring those things to the --
15 through other witnesses, proper witnesses, to
16 the Board.

17 MR. KOHNKE:

18 Okay. I understand.

19 CAPT NGUYEN:

20 Let's move on.

21 MR. KOHNKE:

22 I understand. I understand. What

23 you're saying, Captain -- and I think this will

24 be, I hope, the rule that we follow -- that

25 asking witnesses information about which they

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1 have no personal knowledge will not take place
2 again in this proceeding. Is that where we're
3 going? Because I hope that's it. I hope this
4 rule applies both ways.

5 CAPT NGUYEN:

6 Dr. Smith is here to testify on the
7 work that he did based on, you know, the
8 requirement that MMS provided to him, and you
9 ask him questions that he's not here as an
10 expert witness on this kind of areas that you
11 tried to explore.

12 MR. KOHNKE:

13 Okay.

14 CAPT NGUYEN:

15 And, you know, I think that's a
16 reasonable --

17 UNIDENTIFIED SPEAKER:

18 Mr. Kohnke has every right to ask a

19 hypothetical question of an expert who's
20 testifying on his opinion, and I would concur
21 with that.

22 CAPT NGUYEN:

23 But if it doesn't further the
24 purpose of this investigation, then it's not
25 allowed.

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1 UNIDENTIFIED SPEAKER:

2 Hypothetical questions are always
3 allowed.

4 MR. GODFREY:

5 Captain, in fairness, every
6 lawyer in this room knows that the judge of a
7 tribunal has the inherent right to put limits on
8 the scope, the length, the nature, and the
9 purpose of cross-examination, and it is not an
10 unfettered absolute right. Every lawyer in this
11 room knows that. So we support your ruling and
12 would ask that you enforce it.

13 CAPT NGUYEN:

14 Mr. Kohnke, I'm not sure if you
15 heard me right a while ago, and that is
16 cross-examination and objections, if they don't
17 further the purpose of this investigation,
18 they're not allowed. Period.

19 UNIDENTIFIED SPEAKER:

20 But, Captain, how can you cut

21 somebody off, disallowing him to ask a

22 hypothetical question of an expert, one

23 hypothetical question? Not -- there is not --

24 There's no judge that's going to cut off a

25 lawyer who's posing one hypothetical question to

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1 an expert witness.

2 CAPT NGUYEN:

3 Well, in this case, the nature of
4 that one question is one too many. Please be
5 seated.

6 MR. KOHNKE:

7 Okay. I'm going to bring the
8 Federal Rules next time because, Captain, do you
9 realize that the Federal Rules are to be
10 followed by this Board when possible, and it's
11 possible for you to do it on this occasion.

12 That's what the CFR says. You're not doing
13 that. But that's all right. I'll move on.

14 BY MR. KOHNKE:

15 Q. I want to ask you, sir, about this what
16 I call the lock-down sleeve, and I think if
17 you'll turn to Page 20 of your report, you deal
18 with it there. Bottom paragraph. Referring to

19 Step Number 6 in BP's temporary abandonment

20 plan, you say, quote, this raises the issue of

21 whether the casing hanger lock-down sleeve in

22 Step 6 of the temporary abandonment procedure

23 should have been run before conducting the

24 negative test. Have I read that correctly?

25 A. Yes, sir.

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1 Q. Okay. Now, you then go on to say you
2 could not find an industry standard for this
3 approach, but -- then you say, "but failure to
4 engage the lock-down bolts on surface well heads
5 resulted in the loss of well control." Can you
6 explain that, please?

7 A. Yes. There are instances -- and this is
8 not personal experience. It's anecdote from
9 someone who I consider even more expertise than
10 myself in this area. This is in the public
11 domain somewhere. That there have been at least
12 that one instance of a loss of well control on a
13 surface well head. I don't know where this well
14 was, whether a land well or platform well, where
15 the loss of control was because the lock-down
16 bolts in the well head had not been run in to
17 hold the casing hanger, and the casing hanger
18 seals in place.

19 Q. And you reference the -- doing this step

20 as Number 6 rather than at an earlier time in

21 your report; is that right?

22 A. Right.

23 Q. Looking at the temporary abandonment

24 procedures that were approved by MMS, when would

25 you have -- In terms of your practice, when

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1 would you have done the setting of the lock-down
2 sleeve among these steps that you've listed?

3 MS. KARIS:

4 Objection. This witness has just
5 testified he has no personal experience. The
6 extent of his experience he just said anecdotal.

7 UNIDENTIFIED SPEAKER:

8 Use the microphone, please.

9 MS. KARIS:

10 Certainly. This witness has just
11 testified that he has no personal experience.
12 He was telling us about anecdotal experience
13 that he had, so I would object on foundation and
14 this witness' qualifications.

15 BY MR. KOHNKE:

16 Q. Dr. Smith, are you able to answer that
17 question?

18 A. Yes, from an engineering perspective, I

19 can answer it. I don't -- I don't have an
20 opinion or personal experience that relates
21 specifically to when this lock-down sleeve
22 should have been run. What is an analysis that
23 would address that question from an engineering
24 perspective is whether you would expect to have
25 required that that lock-down sleeve been run to

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1 hold the casing hanger in place. I have not
2 done those calculations. I've done this one
3 real simple calculation that says it's certainly
4 possible that for these pressure conditions that
5 were different than what had been planned,
6 that -- that the pressure differential acting
7 across the area of the casing and the hanger
8 could have pushed the hanger up.

9 Q. And the thing that pushes the hanger up,
10 the thing that is pushed up is the casing
11 itself?

12 A. Yes.

13 Q. Okay.

14 A. Yeah, the casing and the hanger, and
15 then the casing hanger seal is latched to the
16 casing hanger, but it only seals in a -- in a
17 short length of the profile.

18 Q. And if that casing is pushed up and

19 defeats the seal, then you have the possibility

20 of the well flowing?

21 A. Right. If the cement job is also a

22 failure, or if you don't have hydrostatic

23 control, which the time period we're talking

24 about we no longer had hydrostatic control.

25 Q. All right. So even if you had had a

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1 good negative test previously, the failure to
2 lock -- to have a lock-down sleeve installed
3 could result in this same well flowing for that
4 very reason?

5 MS. KARIS:

6 I'm going to renew my objection.
7 This witness has no foundation. He's repeatedly
8 stated he has no foundation, and now we're
9 asking him opinions beyond the scope of his
10 report and beyond his expertise as he's just
11 identified it.

12 THE WITNESS:

13 So the answer is I have not
14 analyzed that possibility.

15 MR. KOHNKE:

16 All right. Thank you, sir. That's
17 all I have, under the circumstances.

18 MR. DYKES:

19 All right.

20 CAPT NGUYEN:

21 Just remember the Rules of

22 evidence.

23 MR. KOHNKE:

24 I'll bring it for you.

25 CAPT NGUYEN:

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1 It's possible we can use it. It's

2 possible we don't have to use it.

3 MR. KOHNKE:

4 It doesn't say you don't have to.

5 It says they should be followed. I'm going to

6 show you the CFR along with the rules.

7 CAPT NGUYEN:

8 Sure. Sure. Thank you.

9 Anadarko, MOEX, please.

10 E X A M I N A T I O N

11 BY MS. KIRBY:

12 Q. I'll try to be really brief. I'll see

13 if I can drill it down, and there's no pun

14 intended here.

15 You were asked to look at data, data for

16 roughly a 24-hour period and to try to fill in

17 the blanks where the data didn't exist, and

18 strictly on the basis of data try to come up

19 with some conclusions; correct?

20 A. Well, I think that's probably over

21 generalized.

22 Q. All right.

23 A. I was trying to correlate the data to

24 what was known about the intended operations and

25 then assess whether there were instances that

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1 contributed to the problem, if I could identify
2 them, and where there were instances that might
3 deviate from general practice -- generally
4 accepted practices.

5 Q. Okay. Now, do you feel satisfied that
6 if indeed -- Was it the third negative test that
7 you said was the conclusively bad one?

8 A. Yes, ma'am.

9 Q. And that's the one that's 1400 on the
10 drill pipe and zero on the kill line; right?

11 A. It's actually about 150 on the kill
12 line.

13 Q. Okay. Assuming those two data points
14 are, in fact, correct, do you feel that you have
15 enough data, enough information to provide to us
16 an opinion today that that negative test was a
17 failure?

18 A. Yes.

19 Q. All right. You don't need to go look at
20 everybody's interview notes or their transcripts
21 from other testimony, if those two data points
22 are correct, it's a failure; right?

23 A. I can't go as far as you went, but what
24 I have right now, the indications are that that
25 test was a failure. There's -- Just like my

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1 light analogy, you know, I can't prove that that
2 pressure was increasing because it was pressure
3 coming from the well. That was the intent of
4 the test, that's what it should have been, but I
5 can't prove that.

6 Q. What should you have seen, zero and
7 zero? What should you have seen?

8 A. Right. Right. Like I --

9 Q. So -- I'm sorry. Based on industry
10 standard ways of reading negative tests, you're
11 looking for something pretty simple, right? A
12 zero on the drill pipe and a zero on the kill
13 line; right?

14 A. Right.

15 Q. And if you don't see that, in your
16 expert opinion, you need to be very concerned;
17 right?

18 A. Yes, ma'am.

19 Q. All right. Now, with respect to all
20 these other things that are in your report, I
21 recognize that you were looking at things in a
22 vacuum, somebody gave you just a limited amount
23 of data -- and hang in there with me because I'm
24 hoping to save you from a whole lot more
25 examination -- would you agree with me that it

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1 probably is the case that there may be data out
2 there -- for instance, cement programs and
3 simulations and things that you haven't been
4 seeing -- you haven't been shown that could
5 affect your analysis on whether, you know, the
6 cement job was good or, you know, that kind of
7 thing?

8 MR. GODWIN:

9 Captain, objection. I thought we
10 were not going to go down this path about the
11 cement job.

12 CAPT NGUYEN:

13 She was just saying things about
14 the data. She just happened to say cementing.

15 MR. GODWIN:

16 But she's asking whether or not the
17 data might suggest it was not good, and I object
18 to that.

19 (undistinguishable colloquy between several

20 parties)

21 MR. DYKES:

22 I think she's just saying that

23 there is other data out there beyond the scope

24 of what he looked at.

25 MS. KIRBY:

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1 Right.

2 BY MS. KIRBY:

3 Q. All I'm trying to do, Dr. Smith, is
4 establish for the benefit of all of us -- and
5 maybe we can go home soon -- that you are not
6 trying to provide a conclusive opinion about all
7 these other things; it's really the negative
8 test and the point at which the well should have
9 been shut in. Those are the two things you feel
10 very very clear about?

11 A. Yes, ma'am.

12 Q. All right. All the other things,
13 perhaps you'd like to see a whole lot of other
14 data; right?

15 A. There's -- There's engineering analyses
16 that could have been done ahead of time and it
17 can done after the fact that I don't have and I
18 don't -- that are relevant. I just don't have

19 them.

20 Q. Okay. I understand. And then two last

21 questions. If you bump the plug, the positive

22 test is testing the casing; true?

23 A. Yes, ma'am.

24 Q. And it's testing the rams; true?

25 A. No, ma'am.

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1 Q. It's not testing the rams?

2 A. No, ma'am.

3 Q. All right. Is it testing the plug?

4 A. Yes, ma'am.

5 Q. Is it testing the cement?

6 A. No, ma'am.

7 Q. Is it testing the casing shoe?

8 A. Only in kind of a mechanical sense that
9 it's there and it's holding the plug.

10 Q. Okay. And is it testing the float
11 collar?

12 A. The same way.

13 Q. The same way, a mechanical sense?

14 A. Yeah.

15 Q. All right. Now let's switch to the
16 negative test. Again, assuming the plug has
17 been bumped, is the negative test that we've
18 discussed today that was a failure testing the

19 cement?

20 A. Yes, in my opinion it is, and it's

21 testing the cement because this barrier

22 between -- The casing system is the primary

23 barrier it's testing. Okay. That failed. When

24 that failed, and there's -- there's pressure

25 coming behind it, that means the cement has

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1 failed too, and that's -- I think that's -- My
2 intention is that's clear in the report.

3 Q. And one last thing. And is the negative
4 test also testing the float collar?

5 Yes, ma'am. I think in the sense that
6 since you're -- We don't -- I don't know where
7 the leak path is or whether there's more than
8 one leak path, but there could be a leak path up
9 through the flow collar, yes, ma'am.

10 Q. Thank you. I can't promise I've spared
11 you anything, but I hope so.

12 EXAMINATION

13 BY MR. JONES:

14 Q. Good evening, Dr. Smith. I'm going to
15 try to be brief as well. My name is David
16 Jones, and I represent Cameron.

17 I want to take you to 9:31 and the time
18 line from that point forward. I think you

19 testified earlier that by 9:31 something was

20 really wrong I think you said.

21 A. Okay.

22 Q. Okay. Now, in your report on Page 14,

23 middle of the paragraph, starting there at 2131,

24 you state that at 2131-40 the drill pipe

25 pressure which was at SPB-2 began increasing;

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1 correct?

2 A. Yes, sir.

3 Q. And you know that from the data that you

4 reviewed, you had the digital data to show you

5 what that -- that the pressure was increasing?

6 A. Right.

7 Q. All right. Then you go on in that

8 sentence to say that this was probably because

9 the BOP was closed. Is that what you say there?

10 A. Yes, sir.

11 Q. Am I correct though that you don't know

12 for sure that anybody closed the BOP at 9:31?

13 A. That's correct.

14 Q. Right. And, again, you don't know it

15 for sure because, as you said, you have no

16 record of commands or actions; correct?

17 A. Right.

18 Q. All right. The cited basis for what

19 appears to be the main basis for your statement

20 that someone closed an annular was, I believe,

21 BP information release on May 12, 2010, entitled

22 What We Know; is that correct?

23 A. Yes, sir.

24 Q. All right. And that document, that

25 what-we-know document in there says that witness

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1 accounts suggest that the annular preventer in
2 the BOP and the diverter were activated; is that
3 correct?

4 A. That's right.

5 Q. All right. That what-we-know document
6 didn't identify the source of any witness'
7 knowledge; is that correct?

8 A. I don't believe so.

9 Q. All right. And that what-we-know
10 document also didn't identify who the witness or
11 witnesses were; correct?

12 A. I don't believe so.

13 Q. All right. And then am I also correct
14 that that document didn't state that an annular
15 or the diverter was activated at any particular
16 time?

17 A. I don't remember. I mean it was like a
18 one-phrase citation.

19 Q. All right.

20 MR. JONES:

21 Captain, could I approach? And,

22 for the record, I am showing the witness the

23 what-we-know document, BPHZNCBC18952.

24 BY MR. JONES:

25 Q. (Exhibiting document to witness). Is

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1 that the what-we-know document that you looked
2 at?

3 A. It's probably the same thing. What I'm
4 remembering I think was an Oil & Gas Journal
5 article or posting or something, but I'm
6 presuming it's the same thing.

7 Q. Okay. Someone may have picked up this
8 document in the media --

9 A. Sure.

10 Q. -- and published it?

11 A. Sure.

12 Q. And I think if you look down there in
13 about the one, two, three, four, five, sixth
14 bullet point, you'll see the reference about the
15 witness accounts suggesting that the annular
16 preventer in the BOP and the diverter were
17 closed; correct?

18 A. Right.

19 Q. All right. Now, so going back to my
20 prior statement, this doesn't suggest that it
21 was closed at any particular time; correct?

22 A. No, sir.

23 Q. Now, what this document does suggest, if
24 it suggests anything, is that the annular or an
25 annular and the diverter were closed after

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1 hydrocarbons were in the surface. Is that a
2 fair reading of this document?

3 A. Well, I don't know that you can draw
4 that much out of this document.

5 Q. All right. Well, let's just walk
6 through it a little bit to see if maybe we can
7 draw that inference. If you take the third
8 bullet point, it says, "After 16.5 hours waiting
9 on cement, a test was performed on the well
10 board below the blowout preventer BOP." See
11 that?

12 A. Yes, sir.

13 Q. Then the next bullet point, which is
14 talking about the test, "During this test 1400
15 PSI was observed on the drill pipe while zero
16 PSI was observed on the kill and choke lines."
17 Do you see that?

18 A. Yes, sir.

19 Q. Then it goes on to say,
20 "Chronologically, following the test,
21 hydrocarbons were unknowingly circulated to
22 surface while displacing the riser with sea
23 water."

24 A. Okay.

25 Q. And so they're saying here in that

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1 bullet point hydrocarbons have been taken to the
2 surface by circulating?

3 A. That's right.

4 Q. And you would agree with me that if
5 you're displacing the riser with sea water, the
6 annular is open, as you understand the procedure
7 that was to be done?

8 A. As they were doing it, it was open.

9 Q. Okay. Okay. And then after that bullet
10 point we say -- or this document says, "As
11 hydrocarbons rose to the surface, they expanded,
12 further reducing the hydrostatic pressure."
13 Then we get the statement, "The well flow and
14 witness account" -- I guess it's singular. It's
15 not plural. "...witness account suggest the
16 annular preventer in the BOP and diverter were
17 activated." Correct?

18 A. Correct.

19 Q. So if we take this document in
20 chronological order as it appears to be,
21 hydrocarbons are at the surface, and then
22 someone makes an effort to shut the diverter or
23 shut an annular; correct?

24 A. That's right.

25 Q. Have you seen any testimony from this

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1 proceeding suggesting that that is in fact what
2 happened?

3 A. I believe there's been something
4 somewhere about hydrocarbons to the -- Well, it
5 may have been mud to the surface.

6 Q. Okay.

7 A. There should -- There should not have
8 been any drilling mud, any synthetic based
9 drilling mud in this system at all at this
10 point.

11 Q. Well, should there have been any of the
12 spacers still in there?

13 A. Presumably, yeah, they were --
14 Presumably they were putting the spacer -- It
15 was a spacer followed by sea water that they
16 were putting overboard.

17 Q. Okay. If the testimony has been in this
18 case that witnesses first observed mud and --

19 mud blowing out of the rig floor up the derrick,
20 then the blowing from the rig floor stopped
21 momentarily, and then gas and mud began blowing
22 from both the degasser and out of the rig floor,
23 would that be consistent with someone taking
24 action to activate the diverter and shut an
25 annular?

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1 A. Well, I don't know about the diverter
2 part. If there was gas coming out of a mud gas
3 separator that was downstream of the choke
4 manifold, that would be an implication that -- I
5 don't know how this rig is plumbed. Okay? I
6 don't know what the plumbing is, so it's really
7 not fair for me to say.

8 Q. All right. Well, if the diverter is
9 plumbed to a degasser, would what I just
10 described be consistent with someone operating a
11 diverter and perhaps an annular and hydrocarbons
12 are at the surface or pretty darn close to it?

13 A. I think so. You know, I've never seen a
14 system arranged like that.

15 Q. Okay.

16 A. It would be -- It would -- In terms of
17 the conventional use of the diverter -- Well,
18 keep going.

19 Q. All right. We'll move on. Let's -- In
20 the second paragraph in your report, about two
21 or three sentences down, you talk about pressure
22 reaching a maximum of 1781 PSI beginning at
23 2135. You see that?

24 A. Yes, sir.

25 Q. All right. And then over the next

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1 couple of paragraphs you're describing the next
2 ten or eleven minutes, and you note that the
3 drill pipe pressure goes down rapidly from 1781,
4 then it goes back up to 1368, then it goes back
5 down, and then it goes back up; correct?

6 A. Right.

7 Q. And we see that over on this log data
8 chart that is over here?

9 A. Yes, sir.

10 Q. Okay. Now, am I correct that you don't
11 know the reason for these pressure variations;
12 correct?

13 A. That's correct.

14 Q. In fact, on Page 14 of your report, you
15 say that the reason for these variations is not
16 known but it is likely to be due to the opening
17 and closing of valves, BOPs, and chokes;
18 correct?

19 A. Right.

20 Q. So it could be valves, might be chokes,
21 might be BOPs, but you just can't tell because,
22 again, we don't have the records of commands and
23 actions; correct?

24 A. Yes, sir.

25 Q. And then I think you also pick up that

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1 theme on Page 23 of your report. You come back
2 to this time period starting at 9:31 in the
3 second paragraph from the bottom where you say,
4 "Further evaluation of the actions taken is not
5 definitive because those actions are not known."

6 You see that?

7 A. Yes, sir.

8 Q. And then you go on to say that the large
9 variations in this SIDP -- which, as I
10 understand, is shut in drillpipe pressure; is
11 that correct?

12 A. Correct.

13 Q. The large variations in shut in
14 drillpipe pressure would not be expected after a
15 successful shutin and may indicate that pressure
16 was being bled intermittently or that the
17 preventers were being opened and closed;
18 correct?

19 A. Right.

20 Q. And that's what this data suggests to

21 you as possibilities?

22 A. They were possibilities.

23 Q. Okay. If you have gas build up under a

24 blowout preventer and you open up that

25 preventer, gas is going up, isn't it?

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1 A. Gas migrates up through a liquid if it's
2 not totally soluble in the liquid.

3 Q. Okay. Assume with me that we've got gas
4 bubbles sitting under the BOP, and you've got
5 mostly water in the annulus above the BOP, and
6 you open that -- you open that annular, that gas
7 is going up; is it not?

8 A. Yes, sir. I think we've done -- the
9 industry, not me personally, the industry's done
10 a full scale experiments of what happens when
11 but that's what happens when it -- when you have
12 gas trapped underneath the BOP and you open that
13 annular.

14 Q. Okay. Once that gas is above the BOP,
15 it is going to the surface; correct?

16 A. In general. It depends. Yeah, if it's
17 in sea water, it's probably going to the surface
18 pretty fast. If it's in a synthetic based mud,

19 there's not a lot of it, it may go (inaudible)

20 before it ever gets there and stop migrating.

21 Q. Okay. And as it goes to the surface,

22 it's going to expand as the pressure decreases;

23 correct?

24 A. That's what we would expect.

25 Q. Is it going to pick up speed as well as

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1 it comes blowing up the riser?

2 A. I believe so, yes, sir.

3 Q. And once you're to that point, once it's

4 past the BOP, it's going up, it's expanding, you

5 can manipulate whatever BOP annular you want,

6 you can manipulate whatever BOP ram you want,

7 nothing you're going to do with that BOP is

8 going to stop that gas; is that correct?

9 A. That's -- That's what the diverter is

10 the last line of defense for.

11 Q. Okay. Thank you. I have no further

12 questions.

13 CAPT NGUYEN:

14 Halliburton.

15 MR. GODWIN:

16 No questions.

17 CAPT NGUYEN:

18 M-I SWACO?

19 MR. EASON:

20 No questions.

21 CAPT NGUYEN:

22 Dril-Qip?

23 MR. KAPLAN:

24 No questions.

25 CAPT NGUYEN:

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1 Douglas Brown?

2 MR. GORDON:

3 Yes, sir.

4 EXAMINATION

5 BY MR. GORDON:

6 Q. My name is Steve Gordon, and I represent

7 Douglas Brown. I have a few questions for you.

8 First question. Absent -- Well, here it goes.

9 Can one of these holes be drilled without a

10 blowout?

11 A. Certainly.

12 Q. All right. And absent some equipment

13 failure or human error, could this MACONDO Well

14 have been drilled and temporarily capped?

15 A. I think so.

16 Q. Okay. Thank you.

17 CAPT NGUYEN:

18 Jimmy Harrell?

19 MR. FANNING:

20 No questions. Thank you. I think

21 I covered everything in the PII.

22 CAPT NGUYEN:

23 Mike Williams?

24 UNIDENTIFIED SPEAKER:

25 He went AWOL. I know he'd want you

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1 to call him.

2 CAPT NGUYEN:

3 All right. Dr. Smith, thank you
4 very much for your testimony today. DO you have
5 any additional information you would like to
6 provide to the Board?

7 THE WITNESS:

8 I think one thing that's in the
9 report that we didn't talk about is displacement
10 of the spacer overboard bypassing the pits,
11 which is logical. If they don't want to keep
12 the spacer, there's no reason to put the spacer
13 in the pits other than for monitoring purposes,
14 and bypassing the flow-out meter and eliminating
15 all conventional well control monitoring
16 methods, that's essentially in direct violation
17 of the MMS rules, and the medium for displacing
18 the fluids overboard with no monitoring. And I

19 believe what would have been a typical -- if not
20 as effective, not as fast, not as effective at
21 displacing fluids would have been to close the
22 pipe and to finish displacement of the riser
23 using just the riser boost line.

24 CAPT NGUYEN:

25 And I understand that's just your

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1 general observation in terms of well control and
2 well -- but not having anything to do with this
3 particular --

4 THE WITNESS:

5 It has exactly to do with this
6 particular operation, but it is an opinion. It
7 is not something that I've been able to identify
8 that would be anywhere in any of the, you know,
9 written documentation of procedures or
10 practices.

11 CAPT NGUYEN:

12 Yes, sir. We'll take your opinions
13 into consideration.

14 MS. KARIS:

15 Captain Nguyen, for the record, I'm
16 going to move to strike based upon being
17 previously undisclosed and beyond the scope --

18 THE WITNESS:

19 No. It's in the report.

20 MS. KARIS:

21 -- that's been identified.

22 CAPT NGUYEN:

23 All right. Thank you. Dr. Smith,

24 you are dismissed. Thank you very much for

25 being here. The hearings are adjourned, and

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1 we'll reconvene on August 23rd in Houston, and
2 we will let you know the location where we will
3 hold the hearings as soon as possible. Thank
4 you. Have a safe trip home.

5 (Whereupon, the hearing was adjourned at
6 5:25 p.m.)

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1 C E R T I F I C A T E

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3 I, CINDY K. TREGRE, Certified Court

4 Reporter in and for the State of Louisiana, do

5 hereby certify that the above and foregoing

6 Proceedings was taken and transcribed by me or

7 under my direction and supervision and is a true

8 and accurate record to the best of my

9 understanding and ability.

10 I FURTHER CERTIFY that I am neither counsel

11 for, related to, nor employed by any of the

12 parties to the action in which this Proceeding

13 was taken; and, further, that I am not a

14 relative or employee of any attorney or counsel

15 employed by the parties hereto nor financially

16 interested, or otherwise, in the outcome of this

17 action.

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CINDY K. TREGRE, CCR

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