

EA02-025

TEXAS INSTRUMENTS, INC.'S

9/10/03

REQUEST NO. 7

BOX 10

PART A – I

PART B

1 A. Ralph.

2 Q. May have been Ralph Newell or
3 Larry Helton?

4 A. Yes.

5 Q. Of the 36 fire claims that you
6 have been involved in on behalf of Texas
7 Instruments how many have Ralph Newell or
8 or Larry Helton been involved in?

9 A. I don't know.

10 Q. More than half?

11 A. You see, sometimes I'm not with
12 them, I don't know whether they are
13 involved or not. But they have been
14 involved in quite a few of them, at some
15 point. And on numerous occasions, we've
16 been there together.

17 Q. Okay. Of those that you do know
18 for sure that they are involved in, at
19 least half of the 36?

20 A. At least half of the 36 what?

21 Q. They were involved in?

22 A. Didn't say that, did I?

23 Q. No, I'm asking. You said you
24 don't know, sometimes --

25 A. I really don't know. It's not

1 unusual when I go that one of them is
2 there, but I really can't -- it's not
3 unusual for me to go by myself and find out
4 they were there earlier or they come later.

5 Q. All right. And I realize that
6 they may have been involved --

7 A. I really can't put a number on
8 it, maybe half.

9 Q. Okay. Okay. Fair enough. Tell
10 me what they told you specifically about
11 the potential problems with the air
12 suspension system.

13 A. I just did tell you. They are
14 always interested in looking at that area.
15 Over the course of that three years, I
16 gathered they are interested in it
17 specifically because they had a few
18 problems with it.

19 Q. What problems?

20 A. They think it may have caused
21 some fires. Whether that has to do with
22 people working on it, changing it, doing
23 maintenance to it, modifying it, you know,
24 I don't know a lot about that because I
25 haven't looked at that issue in great, you

1 know -- as I have this one. This one being
2 the switch. But it's a known fire cause.

3 Q. Were you able to rule out the air
4 suspension system in the [REDACTED] vehicle
5 as a cause of the fire?

6 A. No, nothing left.

7 Q. I'm sorry?

8 A. Basically there's nothing left,
9 burned so bad, nothing left. I can't rule
10 it out either.

11 Q. Okay. The discussions you had
12 with Mr. Newell or Mr. Halton, you don't
13 recall them telling you any specifics as to
14 what might have been the failure mechanism
15 in the air suspension system?

16 A. Yeah, some energized components
17 that are energized after the vehicle is
18 shut down.

19 Q. After you were advised of that,
20 have you done any independent research or
21 any followup to determine if in fact the
22 air suspension system is a potential
23 problem in these vehicles?

24 A. No, that satisfied my curiosity.

25 Q. Well, you've been retained in

1 approximately three dozen fires on behalf
2 of Texas Instruments and you have been told
3 by Ford's investigators that there is
4 perhaps a nonTexas Instruments manufactured
5 part that could cause these fires and you
6 didn't follow up on it?

7 MS. MCLAREN:

8 Object to the form.

9 THE WITNESS:

10 No, didn't do it for the
11 same reason batteries can cause fires
12 and alternators can cause fires and
13 wiring systems and all of the other
14 things, it's just something you go and
15 you look at carefully if you are doing
16 an engine compartment fire on one of
17 these vehicles. And if it's burned
18 too bad to tell anything, you know,
19 that's what you get out of it.

20 EXAMINATION BY MR. PIPES:

21 Q. Did you talk to Texas Instruments
22 about the air suspension system?

23 A. You know, I don't think anybody
24 from Texas Instruments asked me about that
25 subject. It may have come up in some

1 discussions, but I don't recall that
2 specifically. I mean I think Texas
3 Instruments is more interested in their
4 switch.

5 Q. Are there any engineers or fire
6 investigators at Texas Instruments that you
7 mainly deal with or are you primarily
8 responding to legal counsel?

9 A. Legal counsel.

10 Q. And is there anyone at Texas
11 Instruments, either an employee of the
12 company or some independent engineer or
13 fire investigator that has any specific
14 knowledge or general knowledge about this
15 particular part or these fires that you can
16 go to and bounce things off?

17 A. This particular part being what?

18 Q. This switch, speed control
19 deactivation switch.

20 A. I don't understand the question
21 at all.

22 I have no need to go to Texas
23 Instruments about the switch. I am very
24 familiar with the switch.

25 Q. Okay.

1 A. And over the three years, I have
2 met with different people at different
3 times from Texas Instruments.

4 Q. To discuss the history of the
5 switch?

6 A. Yes.

7 Q. Are you knowledgeable about the
8 recall itself?

9 A. Generally, yes.

10 Q. Are you knowledgeable about how
11 the population of vehicles was identified?

12 A. I think I read that at one time,
13 but I didn't review the mathematical or
14 statistical analysis that had to do with
15 the switch recall.

16 Q. Have you ever tried to determine
17 whether or not the identified population of
18 vehicles is accurate or whether it should
19 be expanded or not?

20 A. No, it's not my charter, I
21 haven't been asked to look at that at all.

22 Q. What have you looked at in
23 connection with the switch?

24 A. I've looked at whether it caused
25 fires in about 36 vehicles.

1 Q. You've done that from a fire
2 investigator standpoint, correct?

3 A. I've done it from an engineering
4 perspective.

5 Q. From an engineering standpoint
6 have you ever examined these switches to
7 determine if there is a potential failure
8 mechanism?

9 A. In the switch?

10 Q. Yes.

11 A. Yes.

12 Q. Do you think there is one?

13 A. First off, maybe I didn't
14 interp -- maybe I didn't understand your
15 question. I thought you were talking about
16 failure analysis of a switch that was
17 alleged to be involved in and did you do
18 any laboratory analysis of that and I have
19 on multiple occasions. I didn't do any
20 independent testing related to the physics
21 of the switch failure. However, I read a
22 lot of information about the physics and I
23 mentioned earlier that I thought five or
24 six of the fires I investigated may have
25 been caused by the switch. So obviously, I

1 think that under certain circumstances,
2 under certain circumstances and certain
3 conditions, the potential exists for a
4 failure in the switch over a long period of
5 time.

6 Q. Okay.

7 A. Or we wouldn't be here.

8 Q. All right. Then it's pretty
9 academic that you do have an opinion and
10 your opinion is, yes, these switches
11 located on the these cars within the recall
12 population are capable of failing and
13 causing a fire?

14 A. Under the right conditions, yeah.

15 Q. What are those conditions?

16 A. Well, it appears to me to be when
17 the switch has been severely overcycled
18 about -- past the design criteria by a
19 factor of maybe ten to one. Utilization of
20 the switch and antilock braking situations
21 so that you have multiple cycles, the fact
22 that the switch is energized even when the
23 vehicle is not on. The fact that the
24 connector itself under long-term conditions
25 can be flammable. So if you put all of

1 those conditions together the potential for
2 fire exists. You can't rule it out.

3 Q. Okay. You mentioned that one of
4 the conditions that the switch is, quote,
5 overcycled? What do you mean by
6 overcycled?

7 A. It's my understanding and I
8 haven't reviewed this portion of this stuff
9 for a pretty good while, but the original
10 design criteria, life cycle testing was
11 somewhere in the neighborhood of 150,000
12 cycles or something like that. That may be
13 inaccurate. But as I understand it,
14 one million cycles or so is certainly
15 possible in an eight, nine, ten-year-old
16 vehicle.

17 Q. It's your belief that the
18 original specifications called for this
19 switch to last approximately 150,000
20 cycles?

21 A. No. That wasn't my testimony. I
22 said that the original life cycle -- and I
23 am recalling this from about two or three
24 years ago when I read some of this -- it's
25 my recollection that some of the life cycle

1 testing was 100, 125, 150 million cycles or
2 whatever. These ten-year-old vehicles may
3 have substantially more than that because
4 of the antilock braking system. And
5 cycling is like any other thing in the
6 electrical device, certainly that and it
7 would be anticipated that that may involve
8 some sort of a movement toward potential
9 failure. So I can't rule it out because I
10 haven't done any independent testing. But
11 that would be something I would look at.

12 Q. Your use of the term overcycled
13 then was not to imply in any way that if
14 this switch was cycled more than a certain
15 number of times that it's any type of
16 consumer misuse of the vehicle?

17 A. No, I thought we were talking
18 about design, general design criteria. Has
19 nothing to do with misuse.

20 Q. I wanted to make sure when you
21 say overcycled, it didn't imply in any
22 way --

23 A. I was talking just generically if
24 a switch is tested for 100,000 cycles and
25 you use it for a million, it's like if you

1 use your grandmother's toaster, one day
2 it's going to break, nothing more than
3 that. I don't have the exact numbers and
4 figures anymore, so I don't know the exact
5 things. But cycling is functionally
6 related to failure.

7 Q. Okay.

8 A. You saw very few of these fires
9 in 1994.

10 Q. This particular part, if it were
11 to fail once it reached its life expectancy
12 have you seen any information from Texas
13 Instruments or anyone else that would
14 indicate when it was designed or originally
15 manufactured that it would fail in a manner
16 that could cause a fire?

17 A. I beg your pardon? Do that
18 again.

19 Q. Okay. Have you seen any
20 documentation or received any information
21 to indicate that once this particular part
22 reached its life expectancy that it would
23 fail in a manner that could cause a fire?

24 A. The only thing I could recall
25 I've seen anything close to that is they

1 did issue a recall.

2 Q. Okay. Based on your background
3 as a professional engineer, I assume that
4 these parts would be designed to fail safe
5 once they have reached their life
6 expectancy whether it be 150,000 cycles or
7 a million cycles, this part should have
8 been designed to fail in a manner that
9 doesn't cause a fire, correct?

10 A. Well, you know, I think there was
11 an attempt made to design a system that was
12 failsafe and it's a fused system.

13 Q. When was that done?

14 A. Original installation.

15 Q. This part is fused?

16 A. Yes.

17 Q. But in reality, based on the
18 research that led to the recall, the fuse
19 doesn't always protect this system from
20 causing a fire at the point of failure,
21 correct?

22 A. Yeah, much like your circuit
23 breaker doesn't stop all residential fires.
24 So there are, you know -- I stated earlier
25 if you put all of the things together there

1 are certain situations where you can have a
2 fire as a result of this system.

3 Q. You stated earlier that you have
4 actually done some laboratory type analysis
5 on switches removed from fire-related
6 vehicles?

7 A. Yes.

8 Q. What was the purpose of your
9 analysis? What did you do? What were you
10 looking for?

11 A. There are two. There are several
12 things you can do. The first one involves
13 examination of the contacts themselves, if
14 you can locate them, certainly if you had
15 no arking events on the contact arms or
16 leads for the contacts you don't have a
17 switch fire. I found that on quite a few
18 of these vehicles. The other one is in the
19 absence of that information, you can
20 analyze the guts of the fluid side of the
21 switch to see if there's any tracking or
22 whatever to see if you have potential leaks
23 from the fluid side to the electrical side
24 of the diaphragm.

25 Q. Of the switches that you were

1 able to recover and analyze, how many of
2 those were in a condition where you could
3 actually tell if they leaked or did not
4 leak?

5 A. I think all of them.

6 Q. All of them what you could tell?

7 A. Your question was how many could
8 you tell?

9 Q. Right.

10 A. I said all of them. The ones I
11 opened I formed an opinion in the
12 laboratory once we had an opportunity to
13 look at the interior of the switch. I
14 think maybe I didn't answer your question.

15 Q. Okay.

16 A. That's why it's so important that
17 we don't have a switch in this case.

18 Q. Let me back up then. What is
19 your understanding of the failure mode that
20 this switch goes through to cause a fire?
21 What happens?

22 A. Well, basically what happens is
23 you form an electrolytic path between the
24 hot side of the contacts to ground
25 circuitry, so you get current flowing

1 through a restricted path.

2 Q. Why does that --

3 A. I squared our losses to the point
4 that you ignite the connector material with
5 fire traveling to the wire harness.

6 Q. And it spreads from there?

7 A. It can.

8 Q. What causes that resistive short
9 or overheating?

10 A. I said an electrolytic path.

11 Q. That doesn't mean anything to me
12 though.

13 A. Well, then you shouldn't ask the
14 question.

15 Q. Okay. Well, I get to anyway.

16 A. What I'm saying is -- let me make
17 it clear -- if you have some contaminants,
18 in the electrical part of the switch so
19 that you develop a ground path where you
20 have current flow to ground, then you have
21 the potential for switch failure. Now, on
22 occasions when that just burns out for a
23 variety of reasons, like traveling down the
24 road or a lot of wind or whatever or the
25 fuse blows, which would be the normal

1 occurrence, and there are opportunities if
2 you have the right fuels and the times
3 together that you could have the potential
4 for fire.

5 Q. Do you know if Texas --

6 A. That's just the way -- that's it
7 in a nutshell.

8 Q. Okay. The failure of the switch,
9 is that caused by contaminants? Is it your
10 opinion that that is caused by some failure
11 within the part itself? In other words, is
12 the contaminant coming from within the
13 switch, for example, the fluid or is it
14 coming from outside the switch?

15 A. It can be both but --

16 Q. Road debris?

17 A. Most likely it -- it can be both.
18 Most likely there may be some contribution
19 over the life of the switch due to some
20 sort of leakage path from the fluid side to
21 the electrical side.

22 Q. And what investigation have you
23 done personally that would reflect the
24 ability of the fluid to leak into the
25 electrical portion of the switch?

1 MR. SEELY:

2 Object to the form. Are you
3 talking about -- not talking about
4 Dinecola. You're obviously talking
5 about any switch he's ever looked at?

6 MR. PIPES:

7 In general, sure.

8 THE WITNESS:

9 That's why we open the
10 switches, so we can look at the caftan
11 seals and the body of the switch.

12 EXAMINATION BY MR. PIPES:

13 Q. Is it the seal that fails that
14 allows the fluid to leak into the
15 electrical portion of the switch?

16 A. It can be. You can have, you
17 know, it's just like anything else, there
18 are numerous failure modes interior to the
19 switch, fluid side and electric side. In
20 other words, you can have a nonrelated
21 electrical failure in the switch contacts
22 and the connections just due to a bad
23 connection. When you start saying --
24 identifying one thing -- I identified for
25 you what I thought was a possible or

1 potential failure mode that can lead to a
2 fire. You can have the same thing if it
3 has a bad connection to the switch, if you
4 have high resistance of the connection, if
5 you ignite the connector of the switch.
6 But there are situations like I said where
7 I think you get electrolysis due to brake
8 fluid leakage and contaminants, fluid side
9 to the electrical side.

10 Q. When Texas Instruments retained
11 you to look into these fires involving
12 their switch, that was associated with the
13 known recall, did you not do some research
14 into, "Okay, Texas Instruments, I'm going
15 to do this, but look, give me some info
16 here, I want to know what was wrong with
17 this part, tell me how it failed, and what,
18 you know, what did y'all do after NHTSA
19 contacted you or Ford or whatever, give me
20 everything you got, I want to know why this
21 part started to fail and how it goes about
22 it," you've never gotten all of that
23 information from them?

24 A. I thought I described how I
25 thought the switch failed.

1 Q. How did you gain that
2 information?

3 A. Through all of that stuff that
4 you just asked me if I got.

5 Q. They sent it to you?

6 A. Yeah.

7 Q. Okay. Do you still retain that
8 information?

9 A. Don't have any of it. This is
10 the only file I have left. I returned to
11 Susman and Godfrey all of my files, all of
12 my data and all of my documents.

13 Q. Why?

14 A. They asked me to. They paid me
15 for it, I gave it back to them.

16 Q. When did that take place?

17 A. The last six weeks or so.

18 Q. Okay. How many files are you
19 currently working on that are still active,
20 still open?

21 A. One, maybe two, this one and
22 maybe one other one. But I don't have that
23 file either.

24 Q. Okay. You had to return that one
25 as well?

1 A. Yes.

2 Q. Is that the normal process with
3 most of your clients that you don't keep
4 your own file?

5 A. Sometimes.

6 Q. Okay.

7 A. Confidential agreements, all kind
8 of things, proprietary information, I just
9 don't have it.

10 Q. So you did have at one time a lot
11 of information from Texas Instruments that
12 reflected their investigative process that
13 led to the recall and the problems with
14 this switch?

15 A. I had a bunch of general
16 information. But there are -- I think they
17 have other experts that are working more in
18 the area of the switch failure and testing
19 itself. My primary charter was to go out
20 and look at the hardware in the field
21 because of all of the fire experience and
22 electrical training that I have. So that's
23 primarily what I did for Susman Godfrey, go
24 look at these vehicles, tell me what to do.

25 Q. Do you know what changes, if any,

1 have been made in that particular switch
2 after the '92, '93 production models that
3 would have prevented or decreased the
4 likelihood of these switch failures?

5 A. No.

6 Q. No idea?

7 A. I haven't looked at them.

8 Q. Do you have a professional
9 opinion as to what could be done based on
10 the knowledge you have of the problem to
11 prevent or decrease the likelihood of those
12 switch failures?

13 A. Well, I am aware of some of the
14 -- some of the earlier philosophies of how
15 to repair the system, relays and solenoids
16 and deenergizing and some of those things.
17 They are easier said than done. All of
18 them have to be field tested and things of
19 nature like that. And I am not privy to
20 that testing or what their final decision
21 was. The emphasis was how to protect or
22 deenergize the switch when the car is not
23 being driven.

24 Q. You've read some documents that
25 reflected some of those changes that were

1 being considered to eliminate the problem.

2 A. Well, I stand by my previous
3 answer. Yeah, I have looked at general
4 information.

5 Q. Okay. Do you have any
6 information as to what the particular
7 problem was in the switches installed in
8 the recall population, how they were
9 identified?

10 A. No, I don't recall that it was in
11 there. Some of it was in there, but I just
12 don't recall that.

13 Q. Okay. So you don't have an
14 opinion as to whether there are or are not
15 vehicles within the recall population that
16 might not have a, quote, problematic,
17 closed quote, --

18 A. I don't know what that means. If
19 you're saying not all switches fail, not
20 all switches cause fires, I agree with
21 that.

22 Q. No, what I'm asking you, you
23 don't have an opinion as to whether or not
24 all Ford vehicles within the recall
25 population have the Texas Instruments speed

1 control deactivation switch that might
2 contain a potential failure problem?

3 A. I haven't looked at any
4 statistical analysis of any of that.

5 Q. Okay.

6 A. I don't recall. It may have been
7 something in there, but I don't recall it.

8 Q. Have you then made an assumption
9 that all of the vehicles within the recall
10 that you've been asked to examine contain
11 the switch that is subject to the recall
12 and, therefore, might have this problem
13 associated with switch failure?

14 A. I am not even that narrowminded.
15 I go to the site and say if it has a
16 switch, there's a potential problem.
17 Whether it is in the recall or not, it
18 doesn't matter. I do the same analysis.

19 Q. Okay.

20 A. I look for all the potential
21 sources in the compartment.

22 Q. Is it your opinion that the air
23 suspension system remains energized after
24 the vehicle is turned off?

25 A. Certain situations, yes.

1 Q. What situations?

2 A. I don't recall them right now. I
3 would have go back to the prints. I don't
4 have any of the prints anymore.

5 Q. From your answers is it also safe
6 to assume that under certain situations the
7 air suspension system does not remain
8 energized after the car is turned off?

9 A. I don't think that's true, but
10 there may be a time delay associated with
11 it.

12 Q. Okay. Do you know whether or not
13 there is a time delay meaning the air
14 suspension system remains energized for
15 only a certain period of time after the car
16 is turned off?

17 A. I can't answer that without
18 reviewing those prints.

19 Q. Well, in connection with the
20 Dinecola fire, when I asked you if you were
21 able to rule in or rule out the air
22 suspension system -- and we know that the
23 fire started approximately eight or nine
24 hours after the car was turned off -- isn't
25 that information extremely important to you

1 to be able to rule in or out the air
2 suspension system?

3 A. You can look at it that way. I
4 can't rule it in and out just simply based
5 on the fact there is nothing there. It is
6 just totally -- all the flammable material,
7 electrical wires, everything is gone around
8 the suspension system, so I can't make a
9 determination.

10 Q. My point is obvious. If the air
11 suspension system only remains energized
12 for one hour after the vehicle is turned
13 off and this fire started eight or nine
14 hours after the vehicle was turned off and
15 we assume that the --

16 A. I agree with that.

17 Q. -- the suspension is operating
18 properly, then you could rule out the air
19 suspension system as a potential cause of
20 this fire?

21 A. It would lend itself to that.

22 Q. Okay.

23 MR. SEELY:

24 Let's take a quick break.

25 MR. PIPES:

1 Okay.

2 (Whereupon the proceedings went
3 off the record.)

4 EXAMINATION BY MR. PIPES:

5 Q. I'm going back to the four areas
6 that most concern a fire investigator that
7 you pointed out in NFPA 921. Of the areas
8 that you mentioned one was looking for
9 electrical arking or shorting, is that
10 correct?

11 A. Right.

12 Q. All of the electrical wiring that
13 you did examine, did you find any shorting?

14 A. No. You use the word "all" very
15 cavaliering, because it wasn't much left.

16 Q. But of all the wiring that you
17 did see, you found no electrical anomalies
18 on that?

19 A. I didn't.

20 Q. Do you have an estimate as to how
21 much of the wiring percentwise or however
22 you want to tell me, that you were able to
23 inspect versus how much was missing?

24 A. Probably half or more was
25 missing.

1 Q. And of that approximately half
2 that was missing, are you able to tell me
3 what specific wiring was missing?

4 A. Almost all of the wiring on the
5 passenger side and the front of the vehicle
6 except for the battery cables was gone,
7 lost, fragile, broken. And portions of the
8 main wire harness over by the booster pump,
9 although in my opinion, the wiring in the
10 booster pump area going to the wire harness
11 to the dash was the least heat damaged,
12 wasn't as fragile.

13 Q. Were you ever able to determine
14 from your past history or research on this
15 particular model vehicle '93 Lincoln Town
16 Car what remains energized and what does
17 not remain energized after the vehicle is
18 turned off? We already mentioned the speed
19 control deactivation switch does remain
20 energized, correct?

21 A. Yes.

22 Q. The air suspension system remains
23 energized. We don't know if that has some
24 limitation placed on it, correct?

25 A. Yeah, I can't recall without

1 looking that back up. My recollection is
2 there is a section that is energized. And
3 I had already mentioned earlier in the
4 deposition the B-positive wiring to the
5 alternator and the power circuitry and the
6 ignition switch and all of that is
7 energized and the power cables to the fuse
8 box, there is quite a bit of wiring that's
9 energized, even though it's not supposed to
10 be doing any work.

11 Q. Okay. And excluding the B-plus
12 alternator wiring and the battery cables
13 themselves and whatnot, but the actual
14 circuit wiring or harness that runs to the
15 fuse block or throughout the vehicle, can
16 you tell me, are they all capable of
17 causing fire if in fact they are energized?

18 A. Yes.

19 Q. Are there any of the wiring --

20 A. Under unique certain conditions.

21 Q. Okay. From a fire investigative
22 standpoint, is it generally true that the
23 less current the more difficult it would be
24 to cause a fire?

25 A. No.

1 Q. No. Is there any correlation?

2 A. If all conditions are equal, less
3 current may be -- your statement may be
4 true.

5 Q. Okay.

6 A. But you can have less current in
7 a smaller wire versus less current in a
8 bigger wire and damage and connections and
9 it's a whole field, you can't be that
10 generic and be accurate.

11 Q. Okay. Were there any particular
12 wires that you were unable to inspect that
13 you had any specific cause for concern?

14 A. Well, other than the battery
15 system, are you still eliminating that?

16 Q. Well, can you tell me.

17 A. You know, we talk about a lot of
18 times, the battery system itself I was very
19 suspect of. On the contrary, the wires by
20 the wire harness and the switch context I
21 could recover over by the wire harness are
22 least damaged, which is in contradiction to
23 a switch fire.

24 Q. Based on what, your prior
25 examinations?

1 A. And physics and chemistry of
2 fire, the hottest part of the fire, usually
3 your conductors are more fragile and
4 brittle, they are heavily oxidized. These
5 copper conductors over in that area were
6 still fairly malleably and ductile, weren't
7 nearly as fragile as some of the -- a lot
8 of it was missing. I assume it just broke
9 during shipment or picking it up on the
10 trailer or whatever. So over there where
11 it was, you have the remains of the hood
12 and everything around the booster assembly.
13 There was wire going into the compartment,
14 into the passenger compartment, they
15 weren't as damaged as some of the other
16 ones.

17 Q. Okay. Can you tell me in general
18 where the most and where the least fuel
19 loads are within the engine compartment,
20 whether it be plastic or flammable liquids?

21 A. No, I'm not going to try to do
22 that. Give me a picture of the engine
23 compartment and I'll point to stuff that
24 was burned, be real obvious. Take a
25 picture of that engine, put that I say all

1 of this stuff burned, this isn't -- it's
2 plastic everywhere and rubber everywhere
3 and a limited amount of liquid fuels. When
4 you have a fire this hot, it burns --

5 Q. Okay.

6 A. -- lots of it.

7 Q. There was actual flame
8 impingement and burning throughout the
9 engine compartment, correct? Everything
10 that was consumable was consumed?

11 A. Ninety percent, probably.

12 Q. Okay.

13 A. Pretty bad fire.

14 Q. Okay. And you found no
15 electrical arking or shorting on the wires
16 that you were not able to inspect?

17 A. With the caveat that half of them
18 were gone.

19 Q. Tell me what you were able to do
20 as far as fire patterns or burn pattern
21 analysis.

22 A. Basically, you have some very
23 small switches over near the booster that
24 were intact that I photographed.

25 Q. Let's just go through your

1 photographs and show me what is in them and
2 tell me what is in the photograph, why you
3 took the photograph and what is significant
4 about it.

5 A. These first half a dozen or so
6 basically define the fact that it's a
7 compartment fire in the engine compartment.
8 These are looking back through. This is
9 Photograph 9 and 10. We're in the first
10 series looking through to show that the
11 fire extension was just starting to get
12 into the passenger compartment at the time
13 it was extinguished. I'm not going to be
14 able to do it all that way. I think Figure
15 Number 2 shows pretty clearly the severe
16 oxidation all the way across the front of
17 the vehicle. Most of the fire wall, the
18 engine compartment is fairly linear burn by
19 color and oxidation.

20 Q. Linear means symmetrical on each
21 side of the engine?

22 A. Severe damage everywhere in the
23 engine compartment. The least damage is up
24 here in the area where the switch was
25 because it had quite a bit of hood.

1 remaining and trim going up to the window
2 and all. So even though standing alone it
3 doesn't mean much, if you start adding up
4 what I see, what I don't see, you certainly
5 have to consider if you are looking at a
6 potential switch fire that the only place
7 that there is any hood is right above the
8 switch. Most of the damage to the hood
9 appears to be because the tires did ignite
10 and burn and that is shown in these photos.

11 Do you want to go back?

12 Q. Just real quick, I want to see if
13 there's a picture of the -- is there
14 anything in Figures 3 and 4 that is
15 indicative of burn pattern that could tell
16 us whether it started on the driver's
17 passenger, front, back?

18 A. No, I don't think so.

19 Q. Okay.

20 A. I think you've got so much fire
21 there, whatever signs may have been there
22 earlier in the fire are masked by the
23 severity of the fire as it progressed.

24 Q. What might have been there
25 earlier?

1 A. I don't know. It's not there.
2 In other words, if you look at a
3 compartment fire and this could be any kind
4 of compartment, once you start escaping the
5 compartment and getting flame ignition
6 outside of the compartment, then that fire
7 tends to cover up or disguise the earlier
8 patterns.

9 Q. Uh-huh (indicating
10 affirmatively).

11 A. This damage all along here on
12 these photographs that I'm looking at is
13 clearly as a result of the tire starting to
14 burn and --

15 Q. You are referring to 3 and 4?

16 A. Yeah. You have fire damage from
17 the compartment fire and then you have fire
18 damage because you have additional fuels
19 because there's a fender well, some
20 protection there. When the fire starts
21 wrapping over the edges, you start getting
22 fire extension through the glass into the
23 compartment and through the vents and the
24 fire wall. So it changes. It is just like
25 when we were talking about the dryer fire

1 in the past, there's the little fire, then
2 a big fire, then a room fire and house
3 fire. Each time you get more fire you get
4 more patterns and it changes. Which is one
5 of the reasons we're saying this fire is
6 indeterminate. Figure 12, you know, is a
7 pretty good view of this area that I was
8 talking about before where I have, you
9 know, if you are putting over here in your
10 column to add up all of your signs, you
11 know, switch fire normally you wouldn't
12 expect this remaining, this being the hood
13 and the fire extension up the trim.

14 Q. You would not -- well, let's just
15 make it clear.

16 A. Normally be gone.

17 Q. Figure 12, you're pointing to a
18 small section of hood on the front left --
19 well, the rear left?

20 A. Near the booster.

21 Q. Near the booster?

22 A. Above the trim.

23 Q. And that's the door trim on the
24 driver's door?

25 A. Right.

1 Q. Okay.

2 A. Okay. Same.

3 Q. In Figures 13 and 14?

4 A. Yeah. And you actually see
5 there's a better picture in here. But you
6 actually see some aluminum still on the
7 rocker arm for the hood that extends out
8 even further where it's not melted. If you
9 go over to the other side, totally gone.

10 Q. Have you made any attempt to
11 determine if part of that hood was lost
12 during transit or was initially located on
13 the vehicle after the fire?

14 A. No, none, other than I looked at
15 Mr. Stringer's photographs. I didn't see
16 anything.

17 Q. What is the hood made of?

18 A. Aluminum.

19 Q. Is it your opinion that it was
20 just melted during the fire?

21 A. Sure.

22 Q. Okay. Did it melt on to the
23 engine block, do you know, to the ground,
24 both?

25 A. All the above and vaporized as

1 well. You got a lot of gases coming off up
2 there in the plume of the fire.

3 Q. Number?

4 A. Number 16 is interesting. It
5 shows a lot of the wire harness we were
6 talking about in this area.

7 Q. Did you actually place the wiring
8 in that fashion as it is reflected in
9 Figure 16 or did someone else?

10 A. If you look at earlier
11 photographs, let's see, when I first got
12 there, the wiring was all hanging out.

13 Q. You are referring to Figure 1?

14 A. Yeah, Figure 1.

15 Q. Okay.

16 A. So that's why probably a lot of
17 wiring was lost and everything.

18 Q. Was the vehicle covered when you
19 got there?

20 A. No.

21 Q. It was outside?

22 A. Yeah.

23 Q. Okay.

24 A. Okay. We got 16. Seventeen
25 shows very little fire extension to the

1 driver's side compartment on the driver's
2 side, both through the door panels, the
3 trim and to the seat as compared to -- and
4 this is the VIN number and all on the
5 driver's side door as compared to the
6 passenger's side where I got more extension
7 into the -- the dash is burned a little
8 more, the door more and the seat covering
9 is actually melting and burning. So what
10 I'm saying, I got a little bit more severe
11 fire into the passenger compartment on the
12 passenger side rather than the driver's
13 side. There's another little tick mark, so
14 we have three little tick marks.

15 Q. Were you able to make a
16 determination as to wind direction in
17 relation to how the vehicle was parked?

18 A. No. You brought that up earlier.
19 I didn't get the weather because I don't
20 know which way the car was pointing.

21 Q. Do you know if either of the or
22 any of the windows were rolled down to any
23 extent?

24 A. I don't know that. None of that
25 information is in this report or files.

1 Q. You couldn't tell that from the
2 inspection?

3 A. No. Those things may impact on
4 it, but I can't tell it now.

5 Q. Okay. That was my question. You
6 couldn't tell during inspection whether
7 they were completely rolled up or down?

8 A. Oh, you mean the windows? I
9 thought you were talking about the windows
10 and the weather.

11 Q. Yes, the windows.

12 A. I don't recall the windows. I
13 really don't recall the windows. I mean, I
14 didn't get any fire -- much extension into
15 the compartment anyway.

16 Q. Okay. The front windshield, it
17 would have shattered from heat?

18 A. Yeah. Usually the fire comes up
19 from the bottom, comes in through the lower
20 part of it.

21 Q. In your opinion, how does the
22 fire generally spread from the engine
23 compartment into the passenger compartment?

24 MS. MCLAREN:

25 Object to the form.

1 THE WITNESS:

2 On these vehicles, it
3 usually comes through the openings in
4 the fire wall that are then across the
5 windshield area.

6 EXAMINATION BY MR. PIPES:

7 Q. Where are the openings in the
8 fire wall in the vehicle?

9 A. Big wire harness opening right
10 beside the booster pump assembly on the
11 driver side, another small one there too.
12 You got your air conditioning ducts on the
13 passenger side.

14 Q. Okay.

15 A. A few other small ones, but they
16 are the big ones.

17 Q. Would any type of cracks in the
18 windshield make a difference as to how soon
19 the windshield shattered or was compromised
20 in a way that would allow fire impingement
21 into the passenger compartment?

22 A. I don't know the answer.

23 Q. Okay.

24 A. Possibly, but I don't know the
25 answer.

1 Q. How large is the breach in the
2 fire wall for the air conditioning duct
3 work?

4 A. It's about six or seven by ten,
5 somewhere in that neighborhood.

6 Q. And what about?

7 A. Through your evaporator coils and
8 all.

9 Q. How about the hole in the fire
10 wall for the main wiring harness?

11 A. I would say it's about three and
12 a half, by maybe three by five.

13 Q. And then you mentioned one other?

14 A. Two by three or something.

15 Q. Okay.

16 A. Those are the big ones, VIN
17 number, Figure 6 in Series 646 shows the
18 area looking down at the hood over the
19 booster assembly. And you know, I found
20 that significant. This is the aluminum
21 part that I said was still on the rocker
22 arm for the hood. It extends out about
23 18 inches and according to Mr. Stringer's
24 theory the fire started right underneath
25 there. So I am in disagreement, I think

1 this pointed the other way.

2 Q. What are the combustibles located
3 around the deactivation switch?

4 A. Once you progress from the
5 switch, I would say the next most probable
6 is the main wire harness.

7 Q. The insulation on the main wire
8 harness?

9 A. Yeah.

10 Q. What else?

11 A. And then you have the fluid from
12 the reservoirs up above that, but that's
13 the main area for the fire to travel.

14 Q. And then as you move forward in
15 the engine compartment still on the
16 driver's side, what combustibles are
17 located there?

18 A. You have -- are you talking about
19 forward along the fender wall or what?

20 Q. Yes. Yes.

21 A. You just have some wiring and a
22 few auxillary and all going up that way.
23 That's basically -- you don't have a lot of
24 combustibles right up here. You have a lot
25 of trim up in this area when you get up

1 toward the front of the vehicle, it extends
2 back maybe eight, ten inches.

3 Q. Then you have fan housing?

4 A. Yeah, but that's around to the
5 front.

6 Q. And I'm going now to the front,
7 you have the fan housing, it's all plastic?

8 A. A lot of fuel.

9 Q. It's combustible. Then as you
10 move across the top of the engine to the
11 front right, you have your battery?

12 A. Yeah. And of course, before you
13 get there you got your whole air system.

14 Q. Okay. And then as you move back,
15 what's in the passenger area near the fire
16 wall?

17 A. Well, you have your -- you've got
18 a couple of plastic containers for your --
19 I think your windshield wiper and your
20 reservoir for the radiator system is over
21 on that side. You have your air
22 conditioning system over there, plus you
23 have your regulation equipment, voltage
24 regulation equipment, big wire terminal box
25 and heavy wire harness and battery over on

1 that side.

2 Q. Okay.

3 A. These are some closeups of the
4 area where the block for the switch would
5 normally be. It's not there.

6 Q. Is there anything significant
7 about Figure 7 and 8 on your second roll of
8 film?

9 A. This is up forward, this is both
10 of these on the driver's side back toward
11 the fire wall, as you move forward, I
12 thought the oxidation was much heavier
13 forward than back aft.

14 Q. Indicating what?

15 A. More severe fire damage. This
16 is -- this system, like I said, everything
17 is melted and destroyed in here. Actually
18 both of them, not much left to look at.
19 This is the wire harness, the remains of
20 the wire harness that was there when I got
21 there, in the vicinity of the switch and
22 this photo shows the different colors.

23 Q. Figure 9?

24 A. Yeah. And it goes along and I
25 took those photos to try to show what I was

1 describing before to you about the
2 ductility of the wires and everything, I
3 thought it was another indicator that the
4 fire didn't start here versus somewhere
5 else and the fire moved there. This is a
6 small switch that's located in this wiring
7 here that I'm pointing to it in 9 where I
8 did closeups. This is a real fragile
9 switch. This is not the contacts for the
10 brake switch, but for the oil switch. But
11 it's pretty much intact. And it's not
12 severely heat damaged, which I think is
13 contrary to the fire starting back here in
14 this corner.

15 Q. What is the part itself?

16 A. This is the actual switch contact
17 for the oil's temperature switch, which is
18 located in the back of the engine back here
19 in the corner.

20 Q. That's the sending unit for the
21 oil temperature?

22 A. Yeah.

23 Q. Or oil pressure?

24 A. I think it's pressure and it's
25 the contacts themselves.

1 Q. Okay.

2 A. They are in pretty good shape.

3 Q. And that is mounted where?

4 A. Right on the back of the engine,
5 right over in the corner here.

6 Q. Of the driver's side?

7 A. Driver side, right in the
8 vicinity of the brake pressure switch, not
9 far. The only reason for taking it is to
10 show the fire and it's in pretty sure
11 shape.

12 Q. The wiring harness that is
13 reflected in the Figure 9, is it normally
14 bundled?

15 A. Yes.

16 Q. Okay. And how many bundles?

17 A. Well, I would say I would call it
18 three main bundles, because one's going up
19 back behind the engine, one below the
20 booster and one up high. Actually, it's
21 two and it splits a -- so I mean, I don't
22 really know what you mean, you got wires
23 everywhere back here. There are two main
24 harnesses, one going across the back of the
25 engine.

1 Q. Where are they routed?

2 A. They go into -- they go into
3 the -- these here normally go into the
4 opening in the fire wall to the dash fuse
5 box.

6 Q. Where are they routed within the
7 engine compartment?

8 A. I don't understand.

9 Q. Where do they run in the engine
10 compartment itself, where are they routed?

11 A. In this area.

12 Q. The two main bundles, they run
13 through the fire wall, extend from there
14 out?

15 A. One up beside the booster pump
16 assembly that splits off of it and goes
17 across the back of the engine and edges up
18 above it and comes across.

19 Q. Toward the battery?

20 A. Yes. Those are just closeups of
21 the switch. I didn't mean to skip over
22 that.

23 Q. Eleven and twelve?

24 A. Yeah.

25 Q. What is shown in 13 and 14?

1 A. I'm trying to do an overview of
2 the engine, the engine block assembly, you
3 can see the timing change where there's
4 almost, you know, severe heavy fire damage
5 to this valve cover on the driver's side.
6 And across the front of the engine, this is
7 on the right side, you have a little bit
8 less damage on this valve cover.

9 Q. You're now looking on the
10 passenger side?

11 A. Passenger's side, heavy oxidation
12 all around it. In fact, if you look at --

13 Q. Why would there be more damage on
14 the valve cover on the driver's side than
15 the passenger's side?

16 A: Don't know.

17 Q. Is that in your opinion
18 inconsistent with the earlier opinion that
19 perhaps this fire originated toward the
20 front or on the passenger side?

21 A. No, it isn't. Because this
22 appears to be more damaged because some of
23 it has been broken away, but this being the
24 Figures 13 and 14 on the driver's side.
25 But this on the 15 and 16 is heavily

1 damaged too where the binder is pretty much
2 burned off just not physically damaged as
3 much, so I don't think there's a lot of
4 difference in actual fire damage in these
5 two valve covers.

6 Q. Is it your opinion in Figures 13
7 and 14 the damage to the valve covers
8 appears to be mechanical and not actual
9 burn damage, heat damage?

10 A. There is some mechanical damage
11 as a result of the binder being burned out
12 of the material as evidenced by all of this
13 stranded material loose on here.

14 Q. Why would that occur on the one
15 side and not the other?

16 A. Don't know.

17 Q. Okay.

18 A. Don't know. I've seen it before,
19 but overall I think that this one is
20 slightly less heat damaged, this one being
21 the passenger side than the --

22 Q. Driver's side?

23 A. -- driver's side.

24 Q. Okay.

25 A. Here's a shot of the battery that

1 I was describing before. Most people
2 probably wouldn't even recognize it as a
3 battery. But that's the battery remains.
4 It's totally gone. This is the front view.

5 Q. You're referring to figure 18
6 now?

7 A. Eighteen is a front view and you
8 can see, I mean, you have really heavy fire
9 damage in the front of this engine where
10 you have actually melted the aluminum
11 block.

12 Q. What would the heat source be in
13 that area, the fuel load?

14 A. Fire, a big fire.

15 Q. What is burning right there?

16 A. Everything's burning. You got to
17 remember. This whole thing in this
18 compartment is like a great big oven. I
19 mean the whole thing is hot. And that is
20 why I say the fire is indeterminate. The
21 fire, I mean, the fire patterns really
22 don't have a lot of meanings by themselves,
23 I don't think. It's just too much damage.

24 Q. Okay.

25 A. These are the same. Nineteen is

1 another shot of 18. You can see, just see
2 the hole in the block, that takes a lot of
3 heat. I can't see that overall view
4 through the passenger compartment.

5 Q. Of all the fires that you have
6 investigated in the '92 or '93 model Town
7 Cars, is this the most severe fire damage
8 of those that you have inspected?

9 A. No.

10 Q. Do you recall?

11 A. It's the most severe, if I can
12 clarify that.

13 Q. Sure.

14 A. I think it's the most severe
15 where the vehicle was not in a garage or a
16 residence or a building or a garage or
17 something.

18 Q. That had other fuel loads around
19 it?

20 A. Yeah.

21 Q. In the immediate area?

22 A. Right.

23 Q. You would agree though that of
24 those that you inspected without any fuel
25 sources around it, in other words, that

1 are -- it was isolated, this is the most of
2 the damage that you have seen in the engine
3 compartment?

4 A. And just burned the engine
5 compartment, yes.

6 Q. Okay.

7 A. That's different from when nobody
8 put it out at all and burned the whole
9 vehicle up.

10 Q. Okay. How many have you
11 inspected where the vehicle was isolated or
12 there was no nearby structures or fuel
13 loads to contribute to the damage to the
14 vehicle?

15 A. Maybe a half a dozen or so.

16 Q. Of the half a dozen or so, this
17 is the most severe. Would you relate that
18 to the duration in which the fire was
19 allowed to burn before extinguishment?

20 A. Well, the conditions of the fire,
21 the time is one of the factors. I mean,
22 wind could be a factor, how it was
23 positioned could be a factor.

24 Q. Anything else?

25 A. I think that's basically it. Or

1 if you just, you know, if you had liquid
2 fuel spills or something in there, a lot of
3 oil, grease buildup, stuff like that.

4 Q. On the driveway, you mean?

5 A. No, in the engine compartment.

6 Q. Okay. Of the six or so that were
7 only the vehicle fire involved, this is the
8 only one in which the battery was consumed
9 to this degree?

10 A. Yes.

11 Q. And you don't have any others
12 where the entire engine compartment was
13 consumed to this degree to compare the
14 battery to?

15 A. Well, no. That's not true. I
16 have looked at vehicle fires for 18 years.
17 I've seen lots of burned up batteries, it's
18 a general statement.

19 Q. In '92, '93 Lincoln Town Cars
20 where the fuel loads are generally the
21 same --

22 A. I think it's the most severe by
23 far.

24 Q. This one?

25 A. Yeah.

1 Q. Okay. All right. What other
2 photographs do we have?

3 A. I think the others are
4 repetitive.

5 Q. 24, 23 and 24 shows the two rims,
6 driver and passenger side.

7 A. Yeah.

8 Q. Anything else?

9 A. That's it.

10 Q. Anything else reflected in those
11 photographs that is significant?

12 A. No. I think they show the same
13 things we've already been talking about.
14 No new additional things.

15 Q. Okay. I apologize. I couldn't
16 write as fast as you were reading it. The
17 fourth factor that we look at in fire
18 investigation, you said analysis of physics
19 and conditions and then I --

20 A. Yeah.

21 Q. -- couldn't keep up with you.

22 A. That primarily has to do with
23 fire growth, like in a structure, whereas
24 your fire moves through the structure and
25 you encounter new fuels, different kinds of

1 fuels is like a fire in this room, you get
2 to that big puffed up sofa over there, you
3 would expect in the physics of the fire to
4 all of a sudden get a growth of fire and
5 heavy fire there. You would see signs of
6 that in your investigation. So you have to
7 take into consideration those fuels and
8 that fire growth. So it says analysis of
9 the physics and chemistry of fire
10 initiation, number one, and in other words,
11 how did you get the fuel, the ignition
12 source and the oxygen together at the right
13 time to start the fire.

14 Q. Okay.

15 A. Obviously, we have a problem
16 doing that in this case. And then it goes
17 on to the same philosophies about the
18 instruments for the fire to grow, if you
19 can't do the first one, you can't do the
20 second one, so my comment was we can't do
21 that in this fire.

22 Q. All right.

23 A. You can assume the switch
24 scenario, but that's all you're doing,
25 you're assuming.

1 Q. Right.

2 A. I could assume a battery
3 scenario. I could come in here and say, "I
4 think the battery caused the fire," I'm an
5 electrical engineer, doing it 40 years
6 almost all gone, happens all the time.
7 Battery fires happen all the time, much,
8 much more than switch fires. I'm not doing
9 that. I'm saying the things are there, but
10 you can't say it -- I can't identify the
11 failure.

12 Q. Do you have any statistical data
13 to support your statement that it is more
14 likely -- you're more likely to have a
15 battery fire than a switch fire in a 1992,
16 1993 model Lincoln Town Car than a switch
17 fire?

18 A. No, I probably can't do that.
19 What I can do is say if you take all
20 vehicles, then battery fires are certainly
21 more probable than switch fires for a whole
22 host of reasons.

23 Q. Certainly some vehicles don't
24 have switches.

25 A. I rest my case.

1 Q. And those that do don't have a
2 recalled switch always, correct?

3 A. Don't know the answer, but
4 possibly.

5 Q. Okay.

6 A. You've gotten more windy since
7 our last meeting.

8 Q. And the other one was a much
9 bigger case.

10 Anything that was in
11 Mr. Stringer's report that you disagree
12 with that we have not discussed yet? We
13 went over the deposition. You mentioned a
14 few things, your note, but -- your report,
15 his report, you have not pinpointed
16 anything that you strongly disagree with.

17 A. Well, I think that the things I
18 basically disagree with is the patterns and
19 the analysis of the patterns, because there
20 are three reasons that I get out of why he
21 thinks the switch may have caused the fire.
22 Number one, by far is the fact that it had
23 a recall. And number two, he has some
24 significance to the block being melted. I
25 don't think -- I don't agree with that.

1 And number three, the fire patterns which
2 we've talked about, those are his three
3 reasons that I got out of why he says it's
4 a switch fire. Certainly, if you can, this
5 compartment fire can melt a battery that
6 outweighs that block by about 20 times.
7 You got enough heat to melt an aluminum
8 block, so I discount that.

9 Q. What is the composition of the
10 battery shell?

11 A. The shell is a polymer that will
12 burn. The interior is a combination of
13 lead and sponge lead with some -- few
14 alloys in it for rigidity and water and
15 sulfuric acid.

16 Q. What is the ignition temperature
17 of the battery shell?

18 A. I don't know, probably in the
19 neighborhood of 900 degrees or so, 800 or
20 900 degrees.

21 Q. That's an aluminum block engine?

22 A. The engine's aluminum, yeah.

23 Q. With the melting temperature of
24 around 1,200 degrees?

25 A. I would say about 11.

1 Q. 1,100?

2 A. 1,050, 1,100, depending on the
3 alloys in it.

4 Q. And the lead within the battery,
5 what are the melting temperatures of that?

6 A. A little higher.

7 Q. Higher than?

8 A. A little higher than the
9 aluminum. The sponged lead is a little bit
10 different from the lead plate for the
11 positive plate because it's got different
12 things in it.

13 Q. Okay. Well, we know the fire
14 exceeded 1,100, 1,200 degrees from the
15 damage, the physical damage that we see to
16 the block and some other component parts,
17 correct?

18 A. I would say significantly more.

19 Q. So the heat within that engine
20 was sufficient to consume the battery shell
21 and the lead components within, correct?

22 A. Melt, destroy, not consume. I
23 doubt it consumed the block either. I
24 suspect it melted at some point during the
25 fire.

1 Q. How many depositions have you
2 given in connection with the Texas
3 Instruments speed control deactivation
4 switch?

5 A. I think only two.

6 Q. Would this be the second one?

7 A. I think, yeah.

8 Q. What's the first one, the other?

9 A. I had a case over in Mississippi.

10 Q. Is that on your list?

11 A. Probably.

12 Q. Have you ever testified in trial
13 in connection with one of these switches?

14 A. No, I wanted to.

15 Q. Which one?

16 A. That one over in Mississippi.

17 Q. It was your understanding that it
18 settled.

19 A. I think Ford tried the case and
20 won the case.

21 Q. Texas Instruments wasn't a party
22 to it?

23 A. Right.

24 Q. Do you recall the name of the --

25 A. [REDACTED]

1 Q. [REDACTED] How far back was that?
2 Do you recall when you gave your
3 deposition?

4 A. Let me see it for a minute.

5 Q. You might be able to find it
6 faster.

7 MS. MCLAREN:

8 It was tried in January of
9 '01, Randy.

10 THE WITNESS:

11 Yeah, it goes back a ways.
12 And I lost some of my information when
13 I -- yeah, here it is, fourth one
14 down.

15 EXAMINATION BY MR. PIPES:

16 Q. Okay. Any other vehicle fires in
17 connection with trial? I'm sorry,
18 deposition testimony, anything in here
19 where you testified regarding a vehicle
20 fire?

21 A. I don't think there's any in the
22 last four years, no.

23 Q. Okay. When you were partners
24 with Gene McDowell, he was primarily the
25 fire investigator with your company,

1 correct, and you did more the engineering
2 analysis?

3 A. Well, he did only fires and
4 mostly gas liability fires. I did
5 electrical fires for key clients, but just
6 a general house fire, someone else would
7 go. I would only go if they thought it was
8 electrical, unless it was my clients that
9 elected for me to go.

10 Q. Okay. And when did you form your
11 new company, Owens Forensic Engineering?

12 A. February of 2000.

13 Q. And since that time is it
14 generally the same scenario, you have other
15 individuals go out and do fire cause and
16 origin investigation and you do more of the
17 engineering or analysis type work?

18 A. I would say the same way, except
19 for specific clients who want me to go do
20 the fire.

21 Q. Okay. And your background as far
22 as fire investigation, you're a CFEI?

23 A. No.

24 Q. Are you a CFI?

25 A. I'm not a CF anything. I've

1 never taken any of that. I'm a registered
2 engineer.

3 Q. Have you ever testified in a
4 court of law and been tendered and accepted
5 as an expert in fire investigation?

6 A. Yes, lots of time.

7 Q. Okay. And particularly
8 specifically determining the origin and
9 cause of fires?

10 A. Yes.

11 Q. Ever in Louisiana?

12 A. Probably. I would have to think
13 about the designations.

14 Q. Any of the trial summary cases
15 listed herein, did any of those involve you
16 being tendered and accepted as an expert in
17 fire investigation?

18 A. Probably. And I say that because
19 Whirlpool and Taxtron and Seeman's, they
20 like for me to go to the scene early on,
21 sometimes there's a pure fire guy there,
22 sometimes there isn't.

23 Q. You have never?

24 A. For example, in the [REDACTED] case
25 I don't think we had a fire guy. I think I

1 was tendered for both. The one you asked
2 about in Mississippi, I don't think there
3 was an independent fire guy like a cause
4 and origin person, an investigator.

5 Q. Okay. All right. You didn't
6 testify at trial in [REDACTED]

7 A. No.

8 Q. Okay. I want to know not your
9 deposition, but actually in a court of law
10 at a trial or hearing whether you've ever
11 been accepted.

12 A. I took your earlier questions
13 that way and I answered them that way.

14 MR. PIPES:

15 What I would like to do is
16 get colored reprints of his 48
17 photographs and if I could just get a
18 copy of his CV and all of these
19 attachments with the depo and trial
20 summaries.

21 MR. SEELY:

22 Roger, or even you, Randy,
23 do you still have negatives to those
24 pictures?

25 THE WITNESS:

1 Just copy to your heart's
2 content.

3 MR. SEELY:

4 Do you want color copies?

5 MR. PIPES:

6 I would actually like
7 reprints. Do you still have
8 negatives?

9 THE WITNESS:

10 Sure.

11 Do you see what you did?
12 First he said color copies. Now you
13 talked him into prints. Why don't you
14 do it this way? Here you go. Okay.

15 EXAMINATION BY MR. PIPES:

16 Q. Okay. Do you intend to do any
17 further work in connection with your
18 investigation of this fire from an origin
19 or cause standpoint?

20 A. Not that I am aware of.

21 Q. Is there anything as we sit here
22 today that you can think of that would be
23 beneficial to you in a fire investigative
24 standpoint in connection with this claim
25 that has not been done?

1 A. You mean, yeah, I've done
2 whatever I can do with the evidence that's
3 still available.

4 Q. You can't think of anything else
5 that could be done to assist us in
6 determining the fire's origin or cause?

7 A. I can't.

8 Q. Okay. You stated earlier that
9 you have been asked to return all of your
10 files but that there is only this file and
11 one other that remains still active?

12 A. As far as I know.

13 Q. As far as you know. Did you turn
14 the other file in as well?

15 A. Yeah.

16 Q. What was the name of that claim?

17 A. Gonzalez.

18 Q. Where is it pending?

19 A. Mission, Texas.

20 Q. Are you aware of any other
21 engineer or fire investigator that is also
22 performing similar work as you for or on
23 behalf of Texas Instruments with these
24 switches?

25 A. Bill Hamilton.

1 Q. Where is he located?

2 A. Austin.

3 Q. Boston?

4 A. Austin.

5 Q. Oh, Austin.

6 A. I think he still is helping out.

7 And there may be others, but I know of the
8 one.

9 Q. Anyone else?

10 A. That's the only one I know of.

11 Q. Okay. Have you ever determined
12 whether there is a specific region that you
13 are assigned to or a certain type of claim
14 that you're getting? In other words,
15 between you and Mr. Hamilton, are y'all
16 taking the Texas/Louisiana area or do you
17 have any idea how Texas Instruments has
18 assigned these claims?

19 A. No, other than this is isn't my
20 only client. I've only got so much time.

21 Q. Right. Do you know what some of
22 the symptoms are that might be detected
23 that would indicate a switch failure,
24 either a switch failure or a pending switch
25 failure?

1 A. You could have situations with
2 some of your auxillary systems including
3 the cruise control and brake switch,
4 particularly if you blow the fuse for the
5 system. It depends on how, when you say a
6 pending failure, it depends on how far
7 along the failure is, once you blow the
8 switch, you lose some of your auxillaries.

9 Q. Just in layman's terms as far as
10 the user of the vehicle, the owner, what
11 might they see or what might occur that
12 might put them on notice that there's some
13 type of problem?

14 A. I think I just mentioned.

15 Q. Mentioned the speed control may
16 not work?

17 A. I also said the --

18 Q. Fuse may blow?

19 A. Sometime lights at the back of
20 the vehicle may not work in different
21 situations. I think there's another
22 auxillary. There's three or four different
23 auxillary systems that won't work or will
24 work intermittently, so there are signs if
25 the fuse blows.

1 Q. In connection with the Dinecola
2 claim in your investigation do you have any
3 facts or any information to suggest that
4 this vehicle was not properly maintained?

5 A. You've asked me about that
6 several times. I don't have any records
7 about the maintenance history at all. I
8 only know of one repair.

9 Q. Being what?

10 A. The air compressor for the
11 leveling system was replaced I believe in
12 '97.

13 Q. Do you have any reason to believe
14 that that particular repair had anything to
15 do causally with this fire?

16 A. No, for the same reasons we
17 talked about all morning.

18 Q. Okay. Do you have any reason to
19 believe that the owners of this vehicle,
20 past or present, misused or altered the
21 vehicle in any way or did anything that
22 would have caused this fire?

23 A. No.

24 Q. Okay.

25 A. I don't know what present means,

1 but no.

2 Q. Well, say up until the day of the
3 fire, we don't care what Coparts does with
4 it.

5 Have you ever received any
6 information from Texas Instruments where an
7 investigation or studies were conducted to
8 try to determine if the air suspension
9 system was the cause of some of these
10 fires?

11 A. I don't have a clue.

12 Q. You don't recall receiving
13 anything?

14 A. I don't have a clue what Texas
15 Instruments is doing about the air handling
16 system. You asked me about that. I
17 haven't talked to them about it that I
18 recall. I'm not sure Texas Instruments is
19 doing anything.

20 Q. Earlier you said that you did
21 receive materials that dealt with the
22 problem and Texas Instruments, the history
23 of this recall and whatnot. And it was my
24 understanding from deposition taken with
25 Mr. Mark Hoffman of Ford that Ford and/or

1 Texas Instruments, when they were trying to
2 figure out what was causing these fires,
3 that initially it was thought that in
4 addition to the brake deactivation switch
5 it also could be the air suspension system.
6 So my question to you is --

7 A. I agree with that. I agree with
8 your thought.

9 Q. Did Texas Instruments ever give
10 you their documentation of investigation,
11 research or studies in trying to rule in or
12 out the brake -- I mean, the air suspension
13 system?

14 A. I don't recall reading that.
15 There may have been some generic
16 discussions, but like I said earlier, I got
17 most of my information from Ralph and Larry
18 in the field.

19 MR. PIPES:

20 Okay. That's all I have.

21 THE WITNESS:

22 I did want to clarify one
23 thing because I was thinking about it.
24 You asked me a whole series of
25 questions in regard to the physics of

1 potential failures of the switch. And
2 I assume that you were talking about
3 switches in the recall period and
4 that's how I answered it. I just
5 wanted to clarify that, because I
6 wouldn't want you to think I'm talking
7 about switches that are manufactured
8 today or last month or something like
9 that. Because you prefaced -- we were
10 talking about recalls. So my answer
11 had to do with the recalls that we've
12 been discussing all day.

13 EXAMINATION BY MR. PIPES:

14 Q. And you're referring to your
15 scenarios regarding contaminants within the
16 switch allowing the contacts to fail and --

17 A. Go to ground.

18 Q. Okay.

19 A. Right.

20 Q. And you're not aware of any
21 changes in the design or manufacturing of
22 that switch that would eliminate those
23 problems?

24 A. Well, I'm only aware that there
25 were some changes made in the manufacturing

1 process during the recall period, crimp
2 technique, but other than that, no.

3 Q. Okay. And I asked you about that
4 earlier, I thought I did. And you were
5 saying no, I don't know anything about
6 that. But you are aware of a change in the
7 crimping technique?

8 A. Only generally, only generally,
9 because as I understand the recall period
10 was blocked around some sort of
11 manufacturing process. At one time, I
12 probably did know that, but I haven't read
13 it in about three years. And I just don't
14 recall. But I know there were changes
15 made. The recall period was enveloped by
16 this crimping situation.

17 Q. Okay.

18 A. Other than that, I don't recall.

19 MR. PIPES:

20 All right. That's all I
21 have.

22 MR. SEELY:

23 I have two quick questions.

24 EXAMINATION BY MR. SEELY:

25 Q. You testified -- sorry guys --

1 you testified before about the cycle life
2 specification for the speed control
3 deactivation switch, right?

4 A. Yeah.

5 Q. You said you weren't confident
6 with your answer, right?

7 A. I said there were cycles, life
8 cycling involved in the potential failure
9 scenario, but I didn't recall the exact
10 design criteria.

11 Q. Would it surprise you that the
12 cycle life specification was 500,000 cycles
13 and not 150,000 cycles?

14 A. No.

15 MR. SEELY:

16 That's all I have.

17 MS. MCLAREN:

18 I don't have anything.

19

20 (Whereupon the deposition was
21 concluded at 1:10 p.m.)

22

23

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25

WITNESS' CERTIFICATE

I have read or have had the foregoing testimony read to me and hereby certify that it is a true and correct transcription of my testimony, with the exception of any attached corrections or changes.

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I, KELLY S. WALLACE, Certified Court Reporter, in and for the State of Louisiana, as the officer before whom this testimony was taken, do hereby certify that [REDACTED], after having been duly sworn by me upon authority of R.S. 37:2554, did testify as hereinbefore set forth in the foregoing 141 pages; that this testimony was reported by me in the stenotype reporting method, was prepared and transcribed by me or under my personal direction and supervision, and is a true and correct transcript to the best of my ability and understanding; that I am not related to counsel or the parties herein, [REDACTED] otherwise interested in the outcome of this matter.



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